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THE JOURNAL of the Oklahoma State Medical Association

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GONORRHEA IN THE FEMALE.*

By L. M. SACKETT, M. D., Oklahoma City, Okla.

So surely and regularly does gonorrhea in the female from time to time present its sub-acute manifestations before the practitioner, so does the subject sub-acute itself with the same regular precision before the medical societies of the country.

I know this often discussed condition becomes very burdensome to many of us, yet it does to the female also, and herein lies the purport of this paper,—to impress upon your minds and review with you the real necessity of its early recognition—the endeavor to prevent energetic, persistent and patient treatment of this very serious infection. This same infection which has caused so much unhappiness, suffering and destruction to so many individuals and homes.

This subject is too large to disclose all the different phases or to itemize all that is in the history of gonorrheal infection in women. Just a few important features to mention briefly, and not burden you with the regular routine remarks on what gonorrhea is, where it goes, and what it does.

Accordingly, I hope it will do to pay some attention to the important necessity of pathological recognition of the various stages of its cycle in gonorrheal infection. You will agree and appreciate as the treatment is applied to the understanding of its different stages, so may the results in treatment depend. To mind that without this knowledge and observation can we ever expect results of treatment in any stage. Taking, for instance, the acute stage; if we would recognize and abort by careful appropriate treatment, we might limit the process and prevent the later advance or complications with chronicity, which so inevitably follow.

Therefore, we should know that in the average case, the organism plants himself in the beginning in the Skenes glands, soon attacking the urethra and glands of Bartholin. The glandular structures become swollen, hyperemic and tender, thus disclosing their indentity. The gonococcus imbedded in the gland element. Should we attempt to abort, strong applications are applied to these parts, not intending to seal up infection, but severe enough not only to destroy the organism, but the cellular gland tissue which contains the infection. The severe reaction following brings greater blood supply, bearing greater numbers of leucocytes to assist in repelling the attack. Many times this is possible; occasionally, however, the vulvo-vaginal gland gives trouble. Abscesses develop, because the infection travels the duct and follows one or all of its branches as they diverge into

*Read at Lawton-Medicine Park, Okla., May 9, 1917.

this gland structure, which is of the racemose type. Often in opening and draining and curetting this gland, we fail to cure for the reason that we do not reach all of the cells making up the gland and the infection reaches here through a different branch than the route we chose, hence it is necessary to remove this vulvo-vaginal gland in its entirety, before permanent result is obtained.

Should we be unsuccessful in the abortive attempt, the folds of mucous membrane at the introitus become bathed and hide quantities of pus which finds its way into the vagina.

Normally, the vagina offers a natural resistance from the fact that it is paved with stratified epithelial cells and offers great resistance to infection, and it is a fact that we do not have gonorrhea existing in the vagina proper, although the walls are hyperemic and tender from the irritating exudate. Regardless of the cleansing douche, the folds of mucous membrane store this infection and allow for plenty of resource for the infection, by continuity and contiguity to invade the cervix.

The cervix, once attacked, becomes a very troublesome presistent office. Here the stratified epithelium is converted into the columnar type containing numerous mucous glands. With this change in structure, the susceptibility is greatly increased. Popular impression has been that the organism enters these cells proper and the greatest activity results from this source, but it is the glandular element, the individual gland infections that represent the difficulty and affords the fortification for future action.

The glands are swollen, their cell lining hypertrophied and eroded, occlusion follows and the drainage obstructed; a sealing in process results only to break out at different intervals, resisting our active, patient treatment. The erosions, the cysts, the chronic leucorrhea persists.

To me the endometrium presents an interesting role with its relation to gonorrheal infection. Here again, theories have changed rapidly; for instance, gonorrheal endometritis is rather rare, at least not the rule, in the list of complications. Now, undoubtedly, while gonorrheal endometritis does exist, it is a great deal more uncommon than is ordinarily supposed. The endometrium acts merely as a side-walk for the gonococcus to pass over to the tubes. The infection may sojourn here for a while, but with little or no pathological significance. The endometrium seemingly has a strong natural immunity to invasion, much stronger than the cervix, whether or not due to a papular arrangement, a lower grade columnar epithelium, utricular gland structure or their secretions, yet it is noted that if the stratified epithelium is thicker and extends further up in the cervical canal, there is greater resistance to infection. Following menstruation, however, there is always a greater susceptibility, as the underlying cell glands are swollen and as the superficial layers are cast off, the port-holes are widened more open and permit of easier infection.

If gonorrheal endometritis does exist, it is either but for a short time, as resolution is very rapid, or the symptoms are more manifest from the constant irritation of leaky tubes.

This theory is well proven by scraping and post-mortem evidence with the use of the microscope. At this point then, it will be well to mention by word of caution and condemn the reckless use of a curette. After local treatments are failing, which, by the way, should never extend beyond the cervical canal for the same following reasons—the curette is to be used.

Now the curette should not be carried beyond the cervical district, for the great danger of carrying infectious material into the uterus, which either subsequently involves the tubes surely or light up their former activities. This, I am sure, is an error in practice. In our knowing of gonorrheal infection in the history and in our desire to stop this troublesome leucorrhea, etc., we curette the entire organ. This is unnecessary, superfluous and dangerous in the majority of the average cases. We not only lessen the normal immunity but are apt to carry in

the mixed type of infections, start up old tubal trouble, which can and does set up the local peritoneal symptoms and possibly general peritonitis.

Next in order the Fallopian tubes are attacked with such unfortunate frequency. In by far the greatest number of cases, both tubes are involved nearly simultaneously; rarely one alone, although in one tube the process may be arrested, early resolution, and the fact escape our notice.

The infection is carried to these structures by the continuity of mucous membrane, the blood and lymph streams, most often by the first route. The mucous membrane is thickened, swollen, the muscular coats congested, their fibers elongated, the whole tube red and angry looking and enlarged, the ostium closes. Pus may form rapidly and in a few days be in great quantity.

Most usually the process is slower, the columnar epithelium is highly inflamed, thickened and swollen; the celia are lost. The rugae or folds of mucous membrane ulcerate and become glued together in different areas of the tube. Termination of this pathological process—the gradual accumulation of pus distending, distorting the tube with its many already formed adhesions from exuded lymph, either ruptures and drains back into the uterus or ruptures into the pelvic cavity or becomes sealed up. The activity lessens and disappears for a time only to flare up again under some exciting, irritating influence. Repeating these menacing performances until it is necessary for surgery to put an end to the condition.

Some cases are more fortunate; the process, active for a time, may subside with resolution and absorption and the patency of the tube restored. It is these changing pathological conditions that afford the opportunity for tubal pregnancies. The ovum traveling down the duct is stopped by minute strictures or adhesions which have followed in the wake of inflammation. In times gone by, it was declared that with gonorrheal pus tubes women were rendered sterile—that is not true, because we all can recall instances with a gonorrheal history prior to confinement. She had gonorrheal tubes but with good resolution. Here again should great conservatism be exercised in surgical treatment. Especially, in young women anxious to become mothers—better many times to amputate a portion of the tube and build a new ostium and draw closer to the ovary. Conserve, save, do all that you can to help her, then if necessary do a secondary operation later.

The last and very vital consideration is the ovary. Infection reaches this delicate organ by way of contiguity, continuity, blood and lymph supply. It often happens that an ovary is infected without the infection ever reaching the tubes. How? By the lymph channels draining the endocervical and endometrial regions through the broad ligaments and lateral structures.

Curiously in the descriptive type, only the surface of the ovary is first involved, often no further extension. An excessive amount of lymph is produced around it, responsible for the extensive adhesions which from in this vicinity. Much swollen and extemely edematous. Should the process extend, infiltration occurs into the deep stroma. Here small islands of pus develop, sooner or later there can be a general coalescing and a true ovarian abscess will result, followed by sterility.

Should the opposite condition occur, viz., resolution, we note that the small foci of infection are isolated or absorbed. The attending connective tissue intergrowth with its tendency to contract and retract results in a cirrhotic condition—a cirrhotic ovary.

Sterility is apt to follow here also. Why? Because of the infection or destruction of the viable follicles or on account of the dense thickened stroma of inflammatory connective tissue, cirrhotic stroma, making it impossible for a mature rupturing Graffian follicle to force its way through such a resisting network of fibrous tissue. Consequently, the ovum never reaches the surface.

The adhesions which are associated with gonorrheal infection in the female pelvis are worth mentioning. It is in this condition that they are more rapidly

and more securely developed than in any other type of pelvic inflammation. Another instance of how quickly nature assists in grave dangers. The adhesions formed from extravasated lymph in any style, from threadlike bands to solid masses, are the strongest and the safest of all the different types. Instead of disappearing by traction and absorption as they do for instance, in septic peritonitis or tubercular peritonitis, not a trace remaining years afterwards in many cases, these *gonorrheal* monuments remain only to grow harder and firmer, binding together structures, immobilizing the uterus and its appendages, limiting functions of anything and everything that inhabits the pelvic cavity. Troublesome in the extreme.

From the obstetrical standpoint, many are of our unexplained, long-drawn-out, tedious labor cases due to inertia, as we say—but what has caused the inertia? Earlier gonorrheal infection is unquestionably responsible in a per cent. When the uterus is involved in infection, the parenchyma, especially the inner layer of muscle fibers, are attacked. The resulting connective tissue formation with its characteristic non-elastic qualities, resisting muscular activity, and they fail to respond to the nerve stimulus of the pregnant uterus, and hence the inertia. Later poor absorption of fatty degeneration on account of connective interstital tissue leaving varying degrees of sub-involution.

Little will be said on treatment as it has not changed much from the ideas which we all have; only mentioned to caution against things not to be done.

If one is attempting to abort gonorrhea, necessarily he must use strong caustic application. If he fails or sees the case after abortion is out of the question, the treatment is to be mild at first—rest in bed, very light, low, bland douches. Avoid the dangers of driving infection upward with the douche stream or by the nozzle itself. External douches are frequently the better of the two. Constant local application to the endocervix only, and not beyond.

Various tamponades for relief of local irritation and support are advisable when the infection has attacked the upper structures. Later on thorough curettage of just the endocervix brings good results if thoroughly done. I have seen with good results the endocervix and the endometrium cauterized with pure phenol following curettage—to be sure to get all the infection or destroy all of the infected glands. Yet there is a danger towards an atresia of some degree following too long and too strong cauterization.

Lastly, surgery, conservative surgery, is resorted to for permanent relief and protection from the frequent, troublesome, sub-acute attacks which allows the patient so little comfort or good health mentally and physically between cycles.

This now is the real appeal of this paper—to regard more, study more, learn more of the true condition in gonorrheal inflammation. Be able to decide from the pathological findings the best course to pursue in your treatment. When to conserve or when to sacrifice tissue for the best benefit of your patient.

Learn by the touch what the pathology is, what it means, what structures are involved and how applied to the various symptoms, especially in the neurotic types.

Summary: I am very glad that this paper has brought criticism; that it may stimulate us all to be more observant in future cases. In criticism we are all made better. To me a paper should not be given to represent a man's own personal experience nor observation—we have all had that—but to hunt up and quote the experiences, the findings and the proofs of men whose opportunities and training have been greater than ours. Whose results have been accepted by the majority of the profession as standard for authority. Among those whom I consulted are Graves, Norris, Ashton, Bandler, Boldt, Taylor, Kelley and Noble.

CHRONIC VESICULITIS.

Physiology, Symptoms and Treatment.

By WILLIAM J. WALLACE, Ph. G., M. D., Associate Professor Genito-Urinary Diseases, and Syphilis, University of Oklahoma.

The seminal vesicles were first noted by the anatomists Berendi de Carpi, in 1523, and again by Fallopius in 1562, but were not discovered from a pathological standpoint till 1815 by Baillie of London. Among the urologists of recent years who have devoted special attention to the diseases of these glands, may be mentioned, Fuller, Belfield, Guiteras, Young, Squier and Keyes.

We know at this time, and recognize that obscure joint, neuralgic or neurologic-nephritic, vesical and cardiac diseases are to be found in remote organs or foci. Comparatively recently the tonsils, teeth, nasal cavity and throat have been regarded as the most frequent site of such infections. The genito-urinary tract, which to my experience is to blame in a great number of cases, has not been appreciated as a causative factor. It has long been recognized that gonorrhea, both acute and chronic, is responsible for many general infections, but the seminal vesicles, up to the present time, have received but very little attention. In this article I shall confine my discussion to the role of the seminal vesicles in their chronic state, the toxemias and remote symptoms.

Physiology.

The function of the seminal vesicles is to act as a storage reservoir for the seminal fluid, and to contribute a secretion, which acts as a nourishment or fertilizer, and which also has the faculty of preserving the vitality, and activity of the spermotozoa. It is also possessed of a peristalsis similar to that of other parts of the body. With the physiological stimulus the peristalic wave begins and empties contents.

Pathology.

The most frequent cause of chronic vesiculitis is a result of an extensive posterior gonorrheal, urethritis, or prostatitis. If the case is of long standing, which is always true of the chronic, a mixed infection will usually be found present in the vesicles, namely: streptococci, staphylococci, and the colon and proteus bacillus, etc., which resist all ordinary measures of treatment available to the average physician. There are three stages of chronic vesiculitis to deal with from a pathological standpoint: 1st, the hypertrophic. 2nd, the atrophic, which are the result of an extension of a specific disease, (namely gonorrhea). 3rd, the atonic, a condition of the vesicle which is non-specific, and brought about by abnormal abuses, etc.

First, in the hypertrophic form, we have a general septic inflammatory condition with infiltration, and with inflammation of the mucosa, sub-mucosa and the muscular structure and peri-inflammatory condition of the entire seminal vesicle, which is considerably enlarged and presses up under the bladder in the region of the trigone, and upon the ureters near their entrance in the bladder. The result of this inflamed condition of the vesicles, consists of an altered secretion of the parts, together with the products of an exudative or separative inflammation, in this condition the peritoneum frequently extends well down the vesicle and is attached to them, hence the frequent peritoneal symptoms.

Second. The atrophic is the result of the hypertrophic, and is characterized first, by an overgrowth of tissue, which if untreated, results in the mucosa being deprived of its normal blood supply and function, then the vesicles become atrophied either in part, or completely, destroying the entire vesicles. Sometimes we have calcareous deposits in the diverticulum of the vesicle which is bound down by numerous fibrous bands.

Third. This form, atonic, or non-specific, is the result very frequently of abnormal abuses, lack of indulgence, or over-indulgence. In this the entire

vesicles have become relaxed with no strength of power to stimulate the peristalsis, so it can empty itself of its contents, hence they are soft, mushy and putty-like. The pathology of these three forms is mentioned because each calls for a separate and distinct treatment.

Symptoms.

Chronic seminal vesiculitis is nearly always a continuation of a previous acute vesiculitis which was uncured. At least 70 per cent of the acute cases become chronic. The close association of the symptoms of the chronic vesiculitis with sexual irritability give the appearance of neuresthenia, and mental affections. In the hands of the majority of physicians these cases are often treated for neurasthenia, without the real underlying cause being recognized.

Pain: Felt deep in the perineum, sometimes it is described as a gnawing pain radiating from the groin, frequently accompanied by a sense of weariness and often assumes the form of itching or tickling. Pain interferes with rest and sleep, which hastens the onset of the classical symptoms of neurasthenia. When the bladder is full, the pain is in the supra-pubic region and also is felt in the loin over the kidneys, the latter being caused by counter-pressure by the distended bladder above, against an inflamed vesicle underneath, which extends up and into the ureteral entrance into the bladder. With this pressure we get a direct reflex pain to the kidneys. In the terminal act of urination pain is also felt in the perineum and supra-pubic region and there is also a sensation of fullness in the bladder as though it had not been thoroughly emptied—all due to the inflamed and diseased vesicles which lie underneath the trigonum.

Urinary: The disturbances of micturition are very common. Burning along the urethral canal during micturition or the same sensation may be confined to the prostatic urethra, or to the head of the glans penis. Frequent urination is not such an annoying symptom in chronic vesiculitis as it would be in the acute form, but the desire to urinate is more than it would be in a normal bladder on account of the inability of the bladder to distend, as over-distention presses on the vesicles.

Sexual erethism: Sexual erethism is evident only in the hypertrophic form of seminal vesiculitis. It is characterized by priapism, or frequent erections, due to the congestion of the vesicles, or the pressure of their contents with secretory edema. The erections may be so frequent as to prevent the patient from sleeping at night. The desire is stimulated, and the ejaculation may be painful. Nocturnal emissions accompanied by lascivious dreams are present at first; later, the emissions occur without dreams, and without sensation, or apparent cause, due to the passing from the hypertrophic into the atrophic form.

Impotency: This is due to two pathological conditions of the seminal vesicles, the atrophic and atonic. First, the atrophic form, which is a direct result of the hypertrophic, is the result of a cicatricial contraction, occulsion and destruction of the vesicles. The vesicles are thickened, hard and sclerosed, and calculi are frequently formed. The normal secretion is no longer present to dilute and activate the spermatozoa, hence incurable impotency.

Next, in the atonic form the vesicles have no strength, no power to empty their contents, no circulation and no tone—hence a physiological impotency which is curable.

Spermatorrhea: Spermatorrhea, or gleet, is a very frequent symptom, and most annoying to the patient. The ever present "morning drop" calls up all manner of dire forebodings in the patient's mind, and causes him to consult a physician for relief. If there be only the spermatorrhea present, the discharge is clear and watery; if a mixed infection has occurred, the discharge will be more purulent, containing pus together with epithelial cells and occasionally a few blood corpuscles.

Arthritis: The role of seminal vesiculitis in producing arthritis has been recognized only recently. This systemic effect is due to the absorption of toxins

and bacteria, especially gonorrhea, from the vesicular infection. The symptoms are pain in the lumbar region, severe pain in the coccyx, stiffness of the muscles attached to the tuberosity of the ischium, causing a stiffness when the patient sets down or stands up. Arthritis is often manifested in the form of tender heels, inflammation of the joints, periarthritis and periostitis. Sometimes it is impossible to locate the source of the infection, but if the vesicles are enlarged, it is safe to say that drainage of them will cure the arthritis.

Abdominal: These are usually intestinal in character. Peritoneal symptoms are not uncommon. Attacks of pain, with the concomitant signs and symptoms, have frequently been mistaken for appendicitis, and Schmidt reports numerous cases in which operations have been performed. The peritoneum is frequently attached to inflamed vesicles.

Rectal: There is a feeling of fullness, sometimes pain, sensation of feeling a lump or some obstruction—no power to expel the contents. Anal irritation and eczema are not uncommon.

Ureters: Young reports ten cases in which there was operation for renal calculus, the symptoms of which were typical—intermittent, colicky pains radiating to the groins, simulating ureteral calculi.

Neurasthenia: Nervous symptoms play a prominent part in chronic vesiculitis and are among the most difficult to overcome. These neurotic patients are usually deeply depressed, because of the long standing of their symptoms, and are favorable subjects for melancholia. They brood over their condition, and the prospect of early sterility, together with the fear of insanity, occasionally leads them to commit suicide. If an occlusion of the ejaculatory ducts occurs as a result of the vesicular infection, there is no emission. This causes a severe deep perineal pain with profound nervous shock and depression. Mental lassitude, occipital headache, loss of sleep, aggravated by sexual excitement, are usual symptoms. The feet, hands and back may feel cold and numb; anesthesia and paresthesia may be present in certain parts of the body. Sensation of numbness and atrophy of genitals; flushing of face, indigestion and constipation are common. There is a lack of desire to work and inability to concentrate the mind on any particular task.

Differential Diagnosis:

The normal healthy vesicles are not palpable to the touch, and if the physician is certain that he feels them, there is reason to believe they are diseased. Seminal vesiculitis is most frequently mistaken for chronic prostatitis, posterior urethritis, stricture and varicocele.

Prostatitis: Chronic prostatitis very closely resembles seminal vesiculitis, and the fact that both may be present in the same patient makes it extremely difficult to decide which one predominates. A microscopical examination of the fluid in prostatitis shows the presence of Boettcher's crystals and amyloid corpuscles, which in vesiculitis spermin and spermatozoa are present. Prostatic discharge is more frequent after defecation in prostatitis than it is in the chronic vesiculitis. Rectal examination will show the prostate enlarged, soft and flabby or irregular; while in vesiculitis it is normal and the vesicles are palpable, irregular, tortuous and swollen. Chronic vesiculitis often follows chronic prostatitis. The urine after massage in prostatitis is turbid and contains pus and inflammatory products; while in the vesiculitis it contains only globulin and shreds of membrane.

Chronic Urethritis: Because of the urethral discharge, chronic urethritis is often mistaken for chronic vesiculitis. In vesiculitis, the discharge is clear, and contains spermatozoa; while in posterior urethritis it contains pus, gonococci, and spermatozoa are absent. In urethritis the urine shows shreds; in vesiculitis it is clear until the last, when there is some detritus consisting of membrane, shreds and globulin. Rectal examination shows vesiculitis. Endoscopic examination in posterior urethritis shows granular patches and areas of ulceration.

Stricture: Stricture should never be confused with chronic vesiculitis. The passage of sounds and palpation of the vesicles is all that is necessary to differentiate.

Varicocele: Varicocele is likewise confused with vesiculitis only by the physician who neglects to examine the vesicles. The pain in the groin and testes is common in both diseases.

Treatment:

The treatment consists of constitutional, local and in one form, surgical. The first step is to classify the pathology of the case to be treated, that is, whether atonic, atrophic or hypertrophic.

Atonic: The first form to be considered is the atonic. This is usually nonspecific and generally found in neurotic individuals who never had a specific disease, and in many instances have never even exposed themselves, but have suffered from self-abuse and as a result we find them in a nervous, anemic and weakened condition, mentally, physically and psychologically.

The first of this class in our line of treatment will be constitutional, hygienic and suggestive—advice as to patient's mode of living and suggestions as to exercise and general physical development—definite instructions as to the regulation of sexual habits. It is very necessary to impress upon these patients that the case is serious, but curable, and they must follow instructions implicitly and work in cooperation with the physician as the treatment will extend a considerable length of time.

The local treatment is begun in a systematic way, as follows:

Massage: First, massage the vesicles jointly with the prostate gland, and let me say here that it is very necessary to understand how to give the massage. Patient must lean forward with hands grasping legs, as near ankle as possible, legs widely separated, and straight with no bending of the knee and toes turned in. Introduce the index finger in rectum very carefully, as the latter is frequently very sensitive, carrying the finger over the prostate gland up to the bladder to the back of the seminal vesicles, 2 1-2 to 4 inches from the anus. Begin with a very gentle light stroke back and forth movement, slow and steady, as hard rapid pressure will not empty the vesicles as well as the former method. This should be done slowly several times ascertaining from the patient if anything is passing from the meatus. The time required is usually about three minutes over each vesicle. The prostate is then massaged with very much more force to empty the contents of it as well as the vesicles, as the prostate is usually enlarged too.

Meatotomy: A meatotomy should be performed if a small meatus exists, then introduce a sound into the bladder, the larger the better, preferably size 30 French, allowing this to remain in the bladder for 5 minutes. After withdrawal of sound give deep instillation, both into the prostatic urethra and into the bladder of a stimulating antiseptic. This treatment is given every second or third day. Once a week this instillation consists of 1-2 of 1 per cent of nitrate of silver solution as something is needed to stimulate and build up the part. This treatment systematically used with the cooperation and confidence of the patient, together with the advice of marriage and well regulated sexual hygiene, will cure the patient of vesicular symptoms.

Atrophic: The atrophic is a result of a previous hypertrophic condition causing a destruction, contraction and occlusion of the vesicles. In this we have no vesicular action, merely scar tissue and adhesions, frequently calcareous deposits and nerve pressure, hence reflex symptoms—incurable impotency, and general mental depression. The prognosis in this case is very bad, but can be benefitted by the following treatment.

First treatment is constitutional, as described in the atonic. Locally the treatment will be centered upon an effort to stimulate a circulation through the

scar tissue and to liberate and break down the adhesions around and through the vesicles.

First, introduce a sound clear into the bladder, size 30 to 32 F., the patient in same position as previously described, finger introduced into rectum upon the vesicles and a similar massage given against the counter-pressure of the sound. In this way we can break down some of the adhesions and stimulate a new circulation. This treatment every third day for a period of several months will bring very happy results.

Hypertrophic: In the hypertrophic condition, the treatment is somewhat different from those previously described, as here we have an infiltrated and inflamed, suppurative and circumscribed vesicular abscess, with all the resultant constitutional, neurotic, and local symptoms, with an adhesion or obstruction to normal drainage. So the treatment must be to liberate the contents by drainage. This should be done by local and operative methods.

Local: In the local treatment introduce a sound as previously described, which must remain for 5 minutes—carefully withdraw. Then massage vesicles, each one for three minutes—repeating every day with the object in view of liberating the suppurative contents. The massage must be gentle and slow and should be given each day until the condition is thoroughly cleared and symptoms relieved. This may take from three weeks to three months. Use the sound not oftener than every third day, following with a deep instillation of some antiseptic. If this treatment is carried out it will establish a cure in 95 per cent of the cases.

The remaining uncured cases, which have not yielded to the above treatment, have resolved themselves into circumscribed vesicular abscesses, which must be drained, as these are the foci from which remote constitutional symptoms will arise. Hence a perineal, vesiculotomy is necessary to effect a cure.

Technic For Operation: The patient is placed in the extreme lithotomy position. The skin incision should be either the semilunar, or the inverted V incision, extending from tuberosity to tuberosity. The median tendon is exposed and divided. The urethral-rectal muscle is located by blunt dissection and divided, thus permitting the exposure of the vesicles, which are hidden beneath the fascia of Denon Villier. A Young's prostatic retractor, at this point in the operation will be found useful in bringing the vesicles down into view. Squier passes a needle threaded with heavy silk on each side at the juncture of the bladder and prostate, using this as a tractor; while Schmidt uses tenaculum forceps applied at this point. The fascia is dissected first from one vesicle, and then from the other; the vesicles are opened and a drainage tube of small calibre is fastened into each one by catgut sutures, through the adjoining fascia and tube. The drain is left in place from ten to fifteen days.

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SPOROTRICHOSIS.

To the total number of cases of sporotrichosis observed in this country, amounting to less than a hundred, another is added by E. H. McLean, Omaha (*Journal A. M. A.*, Nov. 24, 1917). Though discovered in America the disease has been more thoroughly studied in France where there is an extensive literature on the subject. In the case reported, a clinical diagnosis of glanders was made but cultures revealed the sporothrix. The case adds another from the Missouri Valley, from which section of the country have come the largest number of reports of the disease.

RELATION OF FOCAL INFECTION TO SKIN DISEASES.*

By EVERETT S. LAIN, M. D.,

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Progressive medicine has always made its advances through diligent pursuits along a particular line until said line of thought or suggestion has been fully developed. Advancement in dermatology, one of the specialties in medicine, has been no exception to this rule. It has been unfortunate, indeed, that for a long period of time practically the only lines of original research or advancement were made along the line of histo-pathology, diagnosis, and in more recent years nomenclature of diseases.

Until recently few men had given serious or diligent thought to the etiology of that large class of dermatological lesions which have been classified as "unknown," "idiopathic," or "trophoneurotic."

After experimental work done and announcements to the world which came from the laboratory of Billings and Rosenow, in the years of 1912 and 1913, wherein they had positively proven a relation of focal infections to rheumatism and a number of other systemic or constitutional diseases, quite a few of our dermatologists, as well as men in other branches of medicine, were awakened to the possible etiologies and soon began investigations of focal infections and what relation the same might have to certain diseases. We soon had announcements from Galloway upon the observation of a number of erythematous eruptions which were accompanied by and associated with rheumatism with a focal infection. Immediately following this, Gerber made observations and studies in ten cases of erythema nodosum, declaring that he had found present in the cutaneous veins, cocci which were similar to those also found in the tonsils, or apical abscesses of the same patient. Soon thereafter, or about November, 1915, Rosenow again announced his proven theory of elective localization of streptococci. Also in the same studies he was able to produce, experimentally, herpes zoster in rabbits which had been innoculated with an emulsion from tonsils or teeth of patients suffering from the same disease.

After hearing and reading of these almost startling discoveries, the author was inspired to examine briefly, and later more carefully, both the tonsils and teeth of every patient who came under his observation suffering with a skin disease whose etiology was not already known. The studies were begun early in the year 1914 and have lasted until the present day. The usual routine consisted of inspection and perhaps palpation of the tonsils in an effort to ascertain whether there might be lacunae filled with pus, also an inspection of the teeth with reference to pyorrhoeal infection or probable apical abscesses.

In the early months of our studies we merely inspected the teeth and made no radiographs unless a tooth presented clear evidence of death of its pulp or nerve. We soon learned, however, that no method other than a complete X-ray picture or radiograph would reveal the true condition presented at the apex of a tooth. Therefore, we do not finally accept any tooth as sound or that there exists no focus of infection until a clear picture is taken which proves same.

Our studies have been largely of such diseases as erythema multiforma, and nodosum, psoriasis, herpes zoster, lupus erythematosis, eczemas, ptyriasis, urticaria, acne and lichen planus. To date we have carefully examined several hundred cases. Within this number we have had quite a few successive cases of each of the above named diseases. Therefore, we feel justified in presenting some of our observations for whatever value they may give to others and trust for a further investigation to reveal the truth or fallacies of our conclusions.

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The length of this paper will not permit of a discussion of each of these diseases as regards the relation or lack of relation of a local foci of infection to their etiology. Therefore, we shall only mention a few of said diseases which have offered most encouragement for our studies or in which there have been almost constantly associated either apical abscesses or diseased tonsils.

NO. 1. ERYTHEMA MULTIFORMA.
Recurrence of Erythema Multiforma involving hands, also large area of mucous surface of mouth and lips. Apical abscesses under first molar.

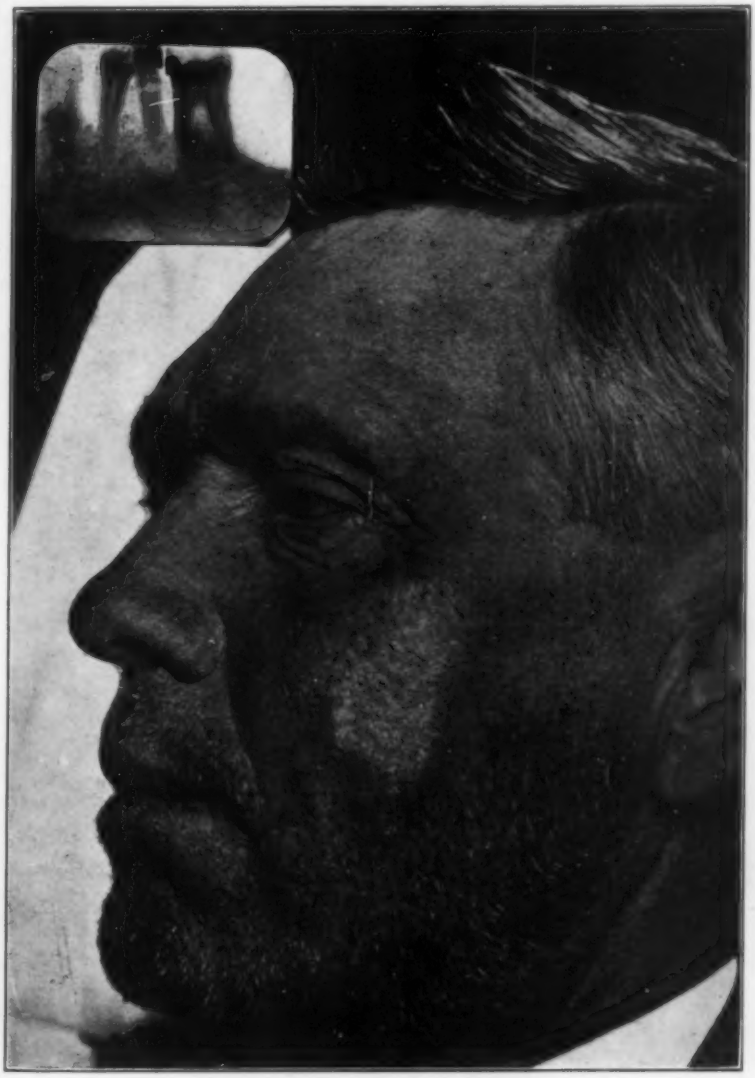
The well known disease of psoriasis has furnished us a large number of cases for investigation and we have been able to note either an infected tonsil or apical abscesses in a large percentage of the cases examined. In a few cases, perhaps ten per cent, we have not been able to locate a probable focus either within the tonsils

or under the teeth. However, when we are reminded by Rosenow and others that a stomach ulcer, diseased appendix, or an infection of the genito urinary tract and other organs are not infrequent sources for the etiology of diseases which may have a special localization for other than their tissues, we still feel encouraged to prosecute the study of psoriasis for a longer period.

NO. 2. HERPES ZOSTER.
Extensive Herpes Zoster, with necrosing fragments of teeth.

Erythema multiforma has in our recent investigations been almost constantly associated with apical abscesses or diseased tonsils. In a recent case of extreme type, in which the mucous surfaces of the mouth and lips were extensively involved, we found teeth and tonsils apparently good, though a radiograph of the teeth disclosed a large apical abscess under a molar of which the patient was uncon-

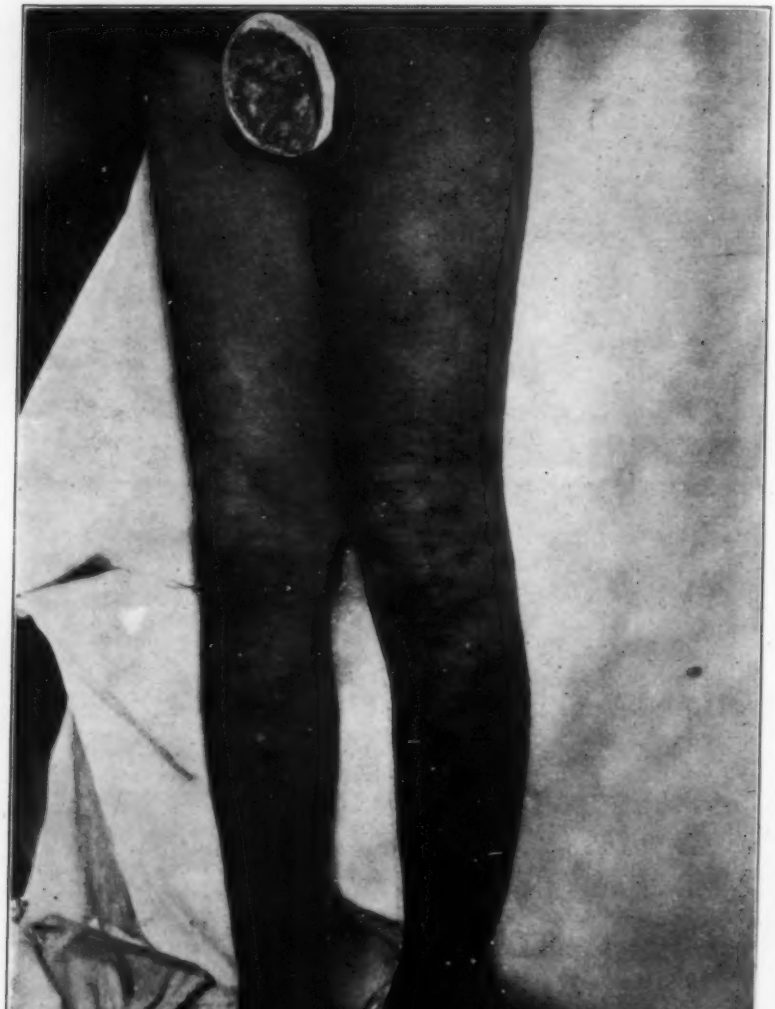
scious. The present eruption was only one of a number of preceding attacks during the past three years. The first having occurred some four or six months after a dentist had attempted to kill the nerve and fill the canal of said affected first molar.



NO. 3. LUPUS ERYTHEMATOSIS.
Two or more sharply defined apical abscesses.

Lupus erythematosis is also offering a very favorable field for study. We did not begin the study of this disease until the past year. Therefore, have not a sufficient number of cases from which to draw conclusions. Of the few cases we

have so far examined, we found the tonsils were affected in a large number, in most of said cases even to a degree of marked hypertrophy. In one case a man, age about 50, retained roots and two or more distinct apical abscesses were dis-



NO. 4. LICHEN PLANUS.
Large pus filled tonsils. After removal of same, a complete recovery within three weeks.

closed by the X-ray. The lesion had dated from a period immediately following a toothache with an attempt at extraction.

Two diseases in our studies have from the beginning been constantly asso-

ciated with a focal infection, namely: lichen planus and herpes zoster. We have examined quite a number of each during the past two and one-half years, and in every case of lichen planus we have been able to discover either one or more apical abscesses, or abscessing fragments of teeth. Or as in most cases in which the patient was under twenty-five years of age, clearly defined hypertrophied pus infected tonsils.

The etiology of herpes zoster can no longer be doubted, since Rosenow's declarations of November, 1915, wherein he related a number of experimental cases produced by innoculations from apical abscesses or infected tonsils. Zoster was one of the first diseases studied by the author and his associate, Dr. M. M. Roland, who has worked side by side with the author from the first to the last case studied. In our studies of herpes zoster, approximately 100 per cent have given evidence of a focal infection.

It now appears almost like a stupidity of our minds that we were not able at an earlier date to classify both rheumatism and zoster, also some of the neuralgias, as a focal infection, for they have always been closely associated with diseased tonsils or pus infected teeth.

Every general practitioner can recall such cases wherein their patients affected with zoster had been affected with repeated attacks of tonsillitis or possessed a foul smelling mouth, wherein there rested fragments of decayed teeth or a constant pyorrhoeal discharge.

In conclusion we are convinced that quite a few dermatological lesions shall soon be classified as focal infections. Some two or four of said diseases we feel confident now shall be among this group, namely: herpes zoster, lichen planus and erythema nodosum, with a probable addition of erythema multiforma and lupus erythematosis. No doubt others may also be classified as those which in rare instances may be caused from a localized foci.

However, it behooves us to study carefully and not jump at conclusions or make wild declarations as some are prone, which are exemplified in a few articles appearing in some of our journals. Let us study carefully and prove all the ground for our conclusions both by microscope, cultures, and the X-ray as well as by clinical findings.

CHRONIC NEPHRITIS.

William Ophuls, San Francisco (*Journal A. M. A.*, Oct. 13, 1917), reports a study of diffuse glomerulonephritis, a term which he prefers for cases in which the renal tissue shows diffuse hematogenous inflammatory lesion. Excluding all focal lesions of lesser importance, the term includes the various types of nephritis in which the lesions of the glomeruli play an important part. The author notices some of the prominent contributions on the bacteriology of these cases, and reports the results of experimental intravenous injection in animals. These results seem to support his former suggestion that the glomeruli lesions are probably embolic and due to the rapid lysis of the bacteria within the vascular loops of the glomeruli. He also describes the course of the three types, acute, subacute, and chronic, and summarizes as follows: "1. There is a well defined disease of the kidneys caused by general sepsis arising from some infected focus and often made progressive by the persistence of such a focus. 2. Since the glomeruli in this disease show the most characteristic and constant lesions, we may speak of it as glomerulonephritis, and as the lesions are so distinctly of an inflammatory character, as true nephritis. 3. The disease occurs in three forms—the acute, the subacute and the chronic type. 4. The characteristic glomerular lesions may be reproduced in animals by injection of bacteria into the blood stream. 5. The majority of cases in man are due to streptococci, but other bacteria may cause similar lesions in the kidneys and elsewhere. 6. Many of the chronic cases seem to be caused by a peculiar form of chronic suppurative tonsillitis due to diplostreptococcic infection."

DIAGNOSIS OF GASTRO-INTESTINAL LESIONS BY X-RAY.*

By J. T. MARTIN, M. D., Oklahoma City, Okla.

Accuracy in diagnosis is the goal of present day progress. In the different fields of pathologic physiology and anatomy of the abdominal organs the radioscope and radiograph is establishing itself. This field is truly modern, and the memory of each one of us vividly pictures the hopes and dreams of its dawning.

I shall endeavor to give briefly the present value as derived from current literature and our experiences at the X-ray laboratory of St. Anthony's hospital in Oklahoma City.

There are two methods in vogue. The one, direct, or American, as Leonard and George call it, and the other the indirect, or continental method. Both are based upon giving an opaque substance in a given menstra and the study of the subsequent shadow. The Ridel meal, more used in the continental schools, consists of 40 gms. of bismuth in 300 cc. of porridge. The usual American meal is 100 gms. to 150 gms. of bismuth in a fluid menstra as buttermilk. The observations with the different meals are not comparable either as to time motility factor of filling power. The fluid meals are more rapid moving and fill both normal and abnormal recesses better than the porridge meals.

The indirect or continental method is chiefly fluoroscopic. It is called the indirect method because the diagnosis is derived by symptom complex, e. g., diagnosis of gastric ulcer by interruption of peristalic wave and rapid emptying.

The direct method attempts to and does demonstrate the lesion on a series of permanent records. The direct method, besides demonstrating the actual lesion at the time, gives an opportunity to study the findings at your leisure and in conjunction with the other evidence in the case. The fluorscopic method leaves no permanent evidence except the record of personal interruption. The wonderful work of Cole, of New York, demonstrates the highest type of the plate method. A judicious combination of the two methods is now the more popular.

The patients presenting themselves for roentgenologic examination of the abdomen should preferably have a gentle cathartic the previous night. Breakfast is prohibited, but water and coffee are allowed. It is wise to take the first view before an opaque meal is given. Fluoroscopy of parts suspected, i. e., at time the opaque meal is in the suspected parts and recording of any abnormality by permanent picture is advised. This should not interfere with, or supersede set plate records of areas as pylorus, caput, ileocaecal, the colonic flexures taken at definite times as on ingestion, the one hour, 3, 6, 9, 12 and 24 hour.

Stomach: Roentgenologic study of the stomach has changed our ideas as to location and shape. The stomach is a collapsible bag hanging in the abdominal cavity. The cardiac orifice is attached to the diaphragm. The pyloric orifice is attached to the slightly movable duodenum. The lesser curvature is less movable than the greater curvature on account of peritoneal attachments. The normal position of the stomach varies, these loose attachments being considered, according to size, general individual development, tone of muscle walls and irritability. The greater curvature may normally be 3 or 4 finger breadths above the umbilicus to the same distance below. The umbilicus, which is often used as a localizing point, is a very movable affair; hence it is better to locate the stomach by the vertebra or the bony pelvis. We may have the stomach above the second lumbar vertebra or to the pelvic brim and yet be normal to that individual.

Ulcer of the stomach can be demonstrated because of the induration and erosion of the stomach wall making an irregularity in the contour of the shadow. The fluoroscope can demonstrate interruption and change in the peristaltic wave and changes in the motility. By plates filling defects an actual outline of the

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ulcer can be shown. Plates should be made immediately after ingestion of opaque meal after 1-2, 3, 6 and 12 hours. In case of ulcer should show: 1. Projection of shadow in wall. 2. Defect in shadow due to infiltration of ulcer wall. 3. Contraction—permanent hour glass. 4. Retention—pylorospasm.

1st: Projection of shadow in gastric wall is due to denuded surfaces on lesser and greater curvatures. This is pathognomic of ulcer. If the ulcer has perforated the gastric wall, the shadow is punched outside the stomach wall.

2nd: Defect in the shadow due to infiltration of the stomach wall. This is shown by filling defect and interruption of peristaltic waves over a definite local rigid area. Fluoroscopy is here valuable.

3rd: Temporary and permanent hour glass stomach are most often ulcer accompaniments. The former is found in both acute and chronic ulcer; the latter is chronic scars of adhesions.

4th: Retention due to pyloric obstruction may be spasm, benign cicatrix, adhesions, outside pressure or new growth. The first three conditions suggest ulcer. Besides definite spasm deep indentations of the incisura is suspicious of ulcer.

Malignancy: The value of the roentgenologic study in malignancy of the stomach is of great importance because it is the most definite of the early evidences we have upon which to base an early diagnosis. The gastric cancer picture is a filling defect, usually near the pylorus, annular in shape and permanent in character. Leonard and George claim the pyloric annular filling defect that has an irregular bitten out appearance is diagnostic of cancer. Advanced cancer has a similar shadow. The annular character may become so marked as to make the lumen appear as a canal; dilitation may follow and atony and retention be the picture presented.

Duodenum: Lewis G. Cole's wonderful work has demonstrated that: 1. Duodenal cap can always be demonstrated in the normal. 2. Defect in its smooth outlines indicates ulcer, adhesions or outside pressure.

It may be very difficult to demonstrate the cap, and many different views may be required. Any abdominal pathology may so turn the duodenum and require lateral and oblique views to demonstrate it. Mesenteric fat also adds greatly to the difficulties in some individuals. Dr. Cole advises that next to the posterior anterior view the left to right oblique is most satisfactory.

Leonard and George say: "In simple adhesions, no matter how extensive, the deformity of the bismuth is greater at the beginning of the examination, gradually lessening as the stomach empties and while the stomach, when first filled, will be found in the sub-hepatic region, it will be found in successive plates to have moved back to the median line as the stomach empties. When the degree of deformity remains the same from the beginning of the examination until the stomach has almost emptied itself, it is the more characteristic of ulcer. A constant deformity of the duodenum is peculiar to ulcer and to no other lesion."

Dr. Carmen of the Mayo clinic emphasizes gastric hyper-peristalsis and six hour residue and classifies hyper-motility and hyper-peristalsis of stomach, and lagging of bismuth in the duodenum as minor points.

Small Intestine: The passage of the opaque meal through the small intestines is rapid and the appearance of the shadow is foam like. Displacing pressure from without, kinks, adhesions and ileal stasis are the chief findings. Condition of stasis is shown when the bismuth meal becomes markedly massed and the massed appearance continues for some time.

Appendix: Acute appendices have definite signs and are usually clearly diagnosed without the use of the X-ray. Chronic appendices that are hard to diagnose and by X-ray are often readily determined.

By using the buttermilk bismuth (or barium) meal the six hour or the twenty-

four hour plate will usually show the appendix. All normal appendices can be shown on plate, unusual positions may make it difficult to bring the organ into view. An appendix that cannot be shown is diseased.

The fluorscope has its greatest field in clearing up the diagnoses of this pirate of the abdomen. Palpatation with the roentgenscope will reveal appendix tender point, movability of the organ and perhaps concretions. All of these findings indicate appendicitis. Thus the X-ray is added to the forces that are daily bringing more offenses home to the right illiac region.

Colon: The technique of colon examination includes the bismuth enema. The picture of the colon following enema is much different from that of the colon filled from above. It is an exaggerated picture and must be carefully studied. It is most useful in malignancy and organic diseases.

Dr. Arthur Hertz' studies of constipation by X-ray are an interesting contribution to the literature of the last decade. The many findings of interest he outlined cannot be even briefly touched in a general paper like this one.

New growth of the colon is a filling defect that usually shows in twelve or twenty-four hour picture. Obstruction, of course, can be shown if present. Opaque enema are more apt to show the obstructive tendencies than the meal; this is on account of the growing mass accommodation for the usual passage of the stream and not for the unusual.

Mal-position and mal-formation, as Hirschprung's disease, are easily shown and easily interrupted. Adhesions can be demonstrated both by the direct and the indirect method. Spasm recognized by the increased depth of the indentation made by the circular muscle fibres, which may entirely separate segments of bismuth. Atony is the opposite, viz: the obliteration of the characteristic colon in markings.

Diverticulitis is usually found in the sigmoid and descending colon, and usually residue shadows after the passage of the main bismuth mass is the sign sought. It is very difficult to distinguish from a new growth on account of the shadow of the inflammatory mass frequently around a diverticulum.

THE SACRO-ILIAC JOINTS.

J. C. Litzenberg, Minneapolis (*Journal A. M. A.*, Nov. 24, 1917), says that while there are those that dispute the true joint nature of the sacro-iliac synchondrosis, all agree that there is physiologic mobility during pregnancy, and this, some hold, may come on during other physiologic conditions. In such cases there are sometimes distressing symptoms, from simple backache to absolute inability to move without suffering. The writer declares that most women, except in the severe cases, believe backache to be a necessary part of their experience, to be endured with womanly fortitude, and he fears that too many physicians also have this view. He gives brief case reports illustrating certain phases of the subject, asserting that every pregnant woman is a potential sacro-iliac patient, while other gynecologic conditions frequently produce backache so that other causes of the pain may need to be treated. The point he wishes to emphasize is that backache may be an entity in itself and that it may by referred sensations even simulate pelvic disease. Much of the backache occurring during menstruation is in the sacro-iliac joints, being due possibly to relaxation or congestion at this period. It behooves the obstetrician and gynecologist to remember that not all lower backaches, even with pelvic symptoms, are due to pelvic disease. The general practitioner and the surgeon should also remember this possibility of backache independent of visceral or neurasthenic condition. The principles of treatment are simple, calling mainly for immobilization of the joints by adhesive straps, belts or other special devices described in orthopedic works. The more extreme cases often tax the skill of the best trained orthopedists, whose aid should always be sought in dealing with the more serious conditions.

SOME CAUSES OF DIFFICULT LABOR AND THEIR TREATMENT.*

By W. W. WELLS, M. D.

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The cause of most of the mortality and morbidity of child birth has been overcome by the intelligent application of asepsis and antisepsis. Now we rarely see a case of puerperal infection except in the case of the criminal or the grossly ignorant. This branch of medicine and surgery is being elevated to a place where, by greater accuracy in the diagnosis of position and greater skill in accomplishing delivery, the mortality and morbidity will be reduced to the minimum.

There are so many causes of difficult labor that I will not try to cover them all in this short paper, such as those caused by some change in the powers as inertia uteri, tetanus uteri, and precipitated labor. Then there are those caused by some abnormal condition of the passengers, as unusual presentation of the foetus, breech, footling, transverse, also the anomalies of the foetus as hydrocephalus, teratoid monsters, lastly and those to which we will confine our remarks almost wholly, are those due to some abnormal condition of the bony pelvis and the soft parts, such as generally enlarged (justo major), generally contracted (justo minor), flat pelvis, rhachitic flat pelvis, asymmetric pelvis from infantile paralysis and transversely contracted pelvis, or any combination of these.

A study of the general make up of the gravida will tell us a great deal. Full muscular women seldom have contracted pelves and if they do the type is usually masculine. Short, petite women may have generally contracted pelves. A woman that limps, or is a hunch-back or has crooked legs, may have a distorted pelvis.

Evidence of rickets should always be sought for in the rhachitic rosary, the square large head, enlargement of the epiphyses, bow legs, and curvature of the spine. A careful consideration of all information obtained enables the accoucheur to make a diagnosis of the case, to give a prognosis, and to recommend treatment.

First we will consider the equally enlarged pelvis, the justo major. This type of pelvis most often occurs in a masculine type of woman, the measurements are all enlarged. We use Leopold's method, all of the measurements are in centimeters,—the pelvis would be considered enlarged when they were 1 1-2 to 2 c.m. above normal, then any pelvis that measured 26½-29½-32½-22, this means that the interspinous is 26½ c. m., intercrestal 29½ c.m., intertrochanteric 32½ c.m., external conjugate 22 c.m. With this type of pelvis we may have a precipitate labor or mal-presentation of the foetus and this may mean for the patient, postpartum hemorrhage, inversion of the uterus, and laceration of the genital tract. For the foetus, death from prolapse of cord, rapid delivery, or striking against some solid object when delivered. The diagnosis is made early by external pelvimetry, seeing that the diameters obtained are equal to or greater than the measurements given.

I scarcely need say to such an audience as this, the treatment consists of instructions to the patient and nurse, that precipitate labor may occur and that as soon as pains begin the patient should be put to bed in the dorsal recumbent position with knees close together or better still turned on her side. This position would retard the labor and give the soft parts time to dilate. When the physician arrives he may give a light anesthesia and put moderate pressure on the presenting part, in this way retarding delivery. This is not a variety of pelvic abnormality that is likely to call for operative procedure unless we have a mal-presentation of the foetus.

The next we will consider is the justo minor, or first variety of contracted pelvis. A contracted pelvis, I need not say, is one in which any one of the im-

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portant diameters measures 1 1-2 to 2 c.m. or less than normal. In the justo minor pelvis, the measurements would be 23½-26½-29½-19 c.m. or less. Internal pelvimetry is necessary to confirm the diagnosis. An X-ray examination would show the pelvis equally contracted and it would also show any exostosis if present. We will consider the treatment of justo minor pelvis later, along with the treatment of other forms of contracted pelves.

The flat non-rhachitic pelvis is one of the most common forms in the United States occurring in about 43 per cent of contracted pelves. The transverse diameters (interspinous and intercrestal) remain the same while the conjugates are shortened. While in the rhachitic flat pelvis the interspinous is equal to or greater than the intercrestal. Thus these two measurements and the shortened conjugate with other signs of rickets would confirm the diagnosis of a rhachitic flat pelvis. This also holds good in the generally contracted flat rhachitic pelvis.

In these cases the external conjugate is shortened. As a clinical index to contracted pelvis, this diameter is unreliable. However, when the external conjugate is at or below 15.2 c.m., or even below 15.8 c.m., the pelvis is invariably contracted. If it measures 20.3 c.m. or more, there is ample room. In the treatment of contracted pelves we will consider them in regard to amount of contraction.

First, when the true conjugate is 7.5 to 9 c.m. or the external conjugate is 17.5 to 19 c.m., more than one-half of these cases will deliver spontaneously. Of course the history of previous pregnancies and the size of the foetal head will tell us what course we must pursue. In these cases if the head be firmly engaged after a fair test of labor, forceps should be applied. We never apply forceps to a floating head. Where the true conjugate is 7 to 7.5 c.m. or the external conjugate is 17 to 17.5 c.m.—this class of cases should be in the hospital, as they are very difficult cases and the mortality to the mother and child is great.

I scarcely need say to you after a fair test of labor without results, a Cesarean section would be indicated. When we come to the actual delivery, we find that it is not the measurements of the pelvis nor the size of the child that makes delivery difficult, but it is the narrowing of the pelvis, the position of the child and most of all, the ability of the part presenting to shape and conform itself to the pelvis. Still, in preparing ourselves for the delivery the only things we have to help us to determine the outcome are the past performance of the woman, her apparent strength and desire to do her part, the size of the child and the size of the pelvis.

In conclusion: The pelvimeter should be used as a routine in the examination of the pregnant woman. That high forceps are not indicated where the head will not engage from any cause, but rather Cesarean section, that even though we have a contracted pelvis with a favorable position of foetus which shows no overgrowth or deformity, the patient can well go on to labor. Of course the X-ray is a valuable asset in making the examination of the foetus and parturient. Notice also that unless there is a marked contraction of the pelvis the gravida should be given a fair test of labor, which consists of 4 to 6 hours of active labor.

But this should be in a hospital where Cesarean section could be performed if necessary. In a contracted pelvis Cesarean section is indicated where the foetal pulse is over 150 or below 110, or where there is a discharge of meconium in a head presentation.

Notice that the neglect of frequent observation of the foetal heart sound has cost the life of many a child. We should make the smallest number possible of vaginal examinations, one or two depending on external palpation for general information, and rectal for definite information. And that accurate pelvimetry is necessary in order to recognize the type of deformity. Notice also that pelvimetry without the estimation of the size of the foetus is of little value and that the most accurate foetometry is the test of labor. All border-line cases should be given the test of labor and the test should be in a hospital.

USE OF FORCEPS.*

By O. C. NEWMAN, M. D., Shattuck, Okla.

Gentlemen: Permit me to thank the committee for selecting me to write a paper on the use of forceps. Not that I feel equal to the occasion or capable of ably presenting the subject, but it has caused me to take the opportunity of reminding myself of things I have never known or have long forgotten. I may impart no knowledge but hope to stimulate enthusiasm, that this discussion may suggest points of usefulness by which we may be benefited indirectly by my efforts and may make it worthy of our time as well spent.

A few remarks may be interesting pertaining to the history of the forceps before discussing their use. It is not an ancient instrument and no record of many centuries past or crude appliances have been discovered from ancient relics that resemble forceps. We can readily conceive the idea why so little progress was made in obstetrics when we realize that the employing of midwives was general, and these for the most part were ignorant and filthy old women that had not had the advantages of the institutions for learning and no thought of assistance other than the process of nature and the routine procedure that had obtained from time immemorial. Educated accouchers were called only in extraordinary cases, but with progress the prejudice which excluded educated physicians from practice of midwifery, gradually gave way and there was opened for obstetrics a new era.

At an earlier period there were crude appliances devised apparently for the mutilation of the foetus, in delivering a woman and when instruments were necessary, always meant death to the child and more or less damage to the mother. Such as was the custom of a few generations past no doubt is the cause of the laity being prejudiced against the use of our modern appliances.

The first forceps were invented probably in 1580 by Chamberlain, and at that time no less than at present, we are impressed to believe that monopoly existed for personal profit or superiority in their sphere of usefulness and retained as a family secret and handed down from one generation to another. In 1723 at a meeting of the Paris Academy of Medicine, crude appliances for the delivery of women were presented and in discussing this question it was added that if by chance any one should happen to invent an instrument which could be so used and keep it secret for his own profit, he deserved to be exposed upon a barren rock and have his vitals plucked out by vultures, little knowing that at that time such an instrument had been in the possession of the Chamberlain family for nearly a hundred years. About 1753 Vischer and Von de Poll purchased the secret and made it public.

The obstetrical forceps rank among the most useful discoveries of modern surgery and while not in common use until a little over a century ago, it may be said that the invention has been the means of saving the lives of countless numbers of women and children. Of all obstetrical operations the most important is the application of the forceps. Nothing but practice can impart the operative dexterity which it should be the aim of every obstetrician to acquire. Yet when improperly used and on cases when not indicated it has made invalids of many women and caused the death of many a child. I have often stated, not in an egotistical way, that the physician not capable of introducing instruments without causing an extra pain to the mother without an anesthetic does not know how to introduce them.

The forceps are more commonly used as *tractors* and because the maternal forces are unable to expel the foetus on account of simple uterine or abdominal inertia.

There can be no set rule when, as to the time of use, as to stage of labor,

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though many advocate that after two hours of labor with no progress, the cervix dilated and proper presentation, the forceps should be used. They are used as *rotators*, but with great caution and then only from the natural axis, through traction as labor progresses. The forceps are used as *compressors*, though not so intended, yet with the head as a sphere and the blades of forceps only on two sides, and as traction is made sufficient to overcome resistance so required, we unavoidably have more or less compression. Some advocate applying the forceps through a partially obliterated cervix and assisting *dilitation* by traction upon the head, but better to stretch the cervix manually and not apply forceps until dilitation is complete.

In rare instances one blade of forceps may be employed as lever, but with great danger to injury to soft parts. We have learned incidentally in our younger days they have relieved us of many anxious moments by acting as irritators; when demonstrating our skill we have completely failed to introduce more than one blade which caused unusuai expulsive pains and relieved us of our anxiety, to our great surprise, by causing birth of the child.

Forceps may be demanded either in the interest of the child or in that of the mother and in many instances these interests are combined under the head of maternal conditions, but secondarily the child also. A few of these may be mentioned, as eclampsia, heart disease, fever or infection during labor, pneumonia, typhoid, tuberculosis, edema of lungs, hernia, appendicitis and other intra-abdominal conditions, placenta previa. In the interest of child, prolapse of the cord, a foetal pulse 100 or exceeding 160 indicates the child is in danger and will perish if not promptly delivered.

In vertex presentations the amniotic fluid tinged with meconium interferes with placental circulation and imperfect oxygination, manifests itself by paralysis of the sphincter ani and sudden death of mother, etc. There are none of us who have not had prolonged and tedious cases who could not resist the temptation of using the forceps. At the same time it should be insisted upon that the operation should never be performed to save the physician time, but only when distinctly indicated by the condition of the mother and child.

The suggestions as enumerated for the use of forceps when indicated in distinctly selected cases, clearly suggest to our minds that the forceps have no competitor in the field of usefulness, shown by the vast number of mothers and children saved when skillfully handled and properly applied and manipulated.

Yet of recent years it has been suggested and advocated by many that in our armamentarium of therapeutics, we have been supplied by a product that has almost displaced the use of forceps, saved time to the busy accoucher and is a boon to the tired mother and her anxious attendants. This product is known as pituitrin. The experience I have had in my limited practice of obstetrics and the observations I have made from receiving stillbirth reports of Ellis County, confirmed me in the belief that the attempted use of forceps is safer in the hands of a physician without experience than a tube of pituitrin in the hands of a busy and skilled physician. After I had observed the effect of the product, even before I had at any time observed a remark of criticism in literature, regarding its use, I made the statement that it was not far distant when we would read in every medical journal that pituitrin had ruined the health of more women and caused more idiots in children in a shorter time of usefulness than all other drugs or appliances used in obstetrics.

This product is applied forceps by therapeutics, and properly comes under the use of forceps, as being demonstrated and advocated for its brilliant results and usefulness of today. No doubt I will be accused of giving too large doses, or not knowing how or when the product is indicated. This was true in the beginning, but fortunately I had no bad results, before I convinced myself that 1 c.c. was much too large and at present hesitate very much in believing that any amount that gives results is too large. I was unable to find my best articles on the contri-

indications and use of the preparation, but refer you to the Journal of A. M. A., June 2, 1917, paper written by Dr. J. J. Mundell.

Before closing I want to quote you an abstract in the Therapeutic Gazette, referring to a paper written by Dr. Allen G. Heard of Galveston, Texas, in the Texas Journal of Medicine, reporting three cases of his own and two cases of Bubis tending to prove: That the improper use of pituitary extract in labor is a cause of cerebral or meningeal hemorrhage in the new born; that hemorrhage in the nervous system of the infant resulting from the use of pituitrin in labor is productive of diffuse nervous lesions so extensive as to result in early death, or if the child survives, in terrible afflictions of paralysis, epilepsy and idiocy.

THE ROENTGENOLOGIC DIAGNOSIS OF TUBERCULOSIS.

By WALTER E. WRIGHT, M. D., Tulsa, Okla.

The roentgen examination of the chest for the diagnosis of pulmonary tuberculosis is not a new method in the history of roentgenology. Francis H. Williams of Boston, as early as 1896, reported cases of tuberculosis examined with the fluoroscope. Roentgen examination for pulmonary tuberculosis should assuredly be considered an important and necessary adjunct in modern medicine as a diagnostic factor. Valuable as it may be when used to confirm the positive clinical diagnosis, insofar as it points out indisputably the character, location and extent of the lesion, it has demonstrated its best power in those patients with suspicious clinical signs but negative sputum.

The intensity and penetration of the roentgen ray is in inverse proportion to the square of the distance and the ease of penetration lessens with increased atomic weight. As lung structure is so constituted that the air-containing tissue makes it possible to recognize by contrast slight changes in density even in small areas, it is readily understood why the changes which occur in pulmonary tuberculosis, in its earliest stages, are observable in the roentgenogram before it is possible to secure a physical diagnostic sign.

The bacillus tuberculosis produces specific lesions which take the form either of separate nodular masses or diffuse growths infiltrating the tissues; aggregations of these elementary tubercles give rise to large tubercular masses. Tubercles are small nodular bodies whose diameters range from .5 to 3 mm. and which undergo caseation and sclerosis. A roentgen observation of early pulmonary tuberculosis is the single calcified or caseated tubercle or groups of tubercles.

The examining methods used in the roentgen laboratory for the detection of tuberculosis are the fluoroscope and the stereoscopic roentgenogram. In fluoroscopy, it is possible to observe the moving parts, such as the excursions of the diaphragm, the pulsation of the heart and aorta, and the aeration of the lungs.

Stereoscopic roentgenograms are two plates exposed by such a method that when they are examined in a stereoscope they present a single image of the different densities of the chest in perspective. The anatomy demonstrated in stereoroentgenograms are the bones, ribs and spine, the diaphragm, the heart and aorta, the bronchial trunks, and the hilus shadow.

The earliest signs of pulmonary tuberculosis are noted in the hilus shadows, the bronchial trunks and linear markings extending to the periphery: these lines radiate from the trunks: the hilus shadow shows increased density with widened area, containing smaller shadows of marked density, while the increased fibrosis and lymphatic tissue is responsible for the increased hilus area. The bronchial trunks are heavier and broader than usual. The linear markings become less regular in outline, criss-crossing each other, coarsened and studded, sometimes forming a network of mesh: with increased consolidation within the lung, the whole area presents the appearance of a unified mass of increased density. There are three important manifestations of the disease recognized by the roentgenologist,

the hilus lesions, peribronchial infiltration in the parenchyma further out around the bronchi, and their terminations.

In active cases, it is seen that the lungs have a thick, fuzzy, woolly appearance, or resembling clouds of tobacco smoke. Later as the condition advances there is a typical picture of calcified areas suggesting fibrosis, aerated spaces denoting the location of cavities resulting from the breaking down of consolidations, and distortion of the viscera.

The roentgen examination is the one means of bringing pathologic lung processes into view, and the interests of our patients are best served by the cooperation of the clinician and the roentgenologist.

BREATH SOUNDS IN EARLY TUBERCULOSIS.

A study of the breath sounds in incipient tuberculosis is reported by H. A. Bray, Ray Brook, N. Y. (*Journal A. M. A.*, Nov. 24, 1917). The object of the study was to ascertain the clinical importance of breath sounds in pulmonary tuberculosis with the hope of obtaining data for early diagnosis. A study was made of 124 cases of incipient disease confined to one or both apexes, and the comparative significance of the respiratory changes was considered both alone and in conjunction with other physical signs and diagnostic procedure. The writer desired the advantage of studying apical involvement alone instead of subjecting the patient to the greater physical strain of complete chest examination, because of the greater frequency of involvement of the apex. All conditions which might alter the character of the breath sounds at the apex were excluded. The findings are commented on at length, and the author reaches the following conclusions: "1. Abdominal breathing is an effective method for the differentiation of granular breathing, from those extrapulmonary sounds simulating this type of breathing. 2. The observation of the time interval and force of the respiratory act is essential in the differentiation of physiologic from pathologic alterations in the duration and intensity of the respiratory murmur. 3. The lung glides across the auscultated field during respiration. 4. Variations in the force of the respiratory act may profoundly alter the character of the respiratory murmur in the region of the apexes. 5. Expiratory alterations predominate at the right apex, inspiratory at the left apex. 6. Prolonged expiration, when more pronounced at the left than at the right apex, is a reliable sign of disease at the left apex. 7. Bronchovesicular breathing may be explained by contiguous areas of consolidated and aerated lung that alternately glide beneath the stethoscope during respiration. 8. The frequency with which alterations in the respiratory murmur occur over the healthy apex in unilateral disease deserves attention. 9. Physiologic respiratory modifications interpreted as pathologic represent the most frequent error in the physical examination in early tuberculosis. 10. A study of the breath sounds in early disease is often difficult and misleading, and for this reason should not be unduly emphasized in diagnosis."

EPIDEMIC MENINGITIS.

George Mathers, Chicago (*Journal A. M. A.*, Nov. 24, 1917), reports a case of mixed infection of epidemic meningitis in which the pneumococcus, as well as the meningococcus, was found in the spinal fluid. This case is similar to the cases reported by Metter and Salanier in a recent communication. The writer calls attention to the importance of such cases and their diagnosis. Of course they do not respond to the antimeningococcic serum injection but give the symptoms of the meningitis. Observations of this type emphasize the importance of frequent cultural examination of the spinal fluid in cases of epidemic meningitis. In the case reported, cultures showed a gram-negative organism with the characteristics of the meningococcus, together with the gram-positive typical pneumococcus.

OBSERVATIONS OF THE CARREL-DAKIN TREATMENT AT NEW YORK POLYCLINIC HOSPITAL.

By A. RAY WILEY, M. D.
House Surgeon, New York Polyclinic, New York City
Tulsa, Oklahoma

As with all new ideas in medicine, surgery or revival of an old idea, the literature is flooded with opinions pro and con and leaves the readers of less experience as much behooved as before. Such has been the case with articles on the Carrel-Dakin treatment, most of the authors condemning without trial or others carried away with enthusiasm and lauding it beyond reason.

The author's experience has been with all the cases at the Polyclinic Hospital since February, 1917, and observations at the Rockefeller Institute of Medical Research on frequent visits. This article is given as a summary and not a detail account of any series of cases.

The treatment is one of perfected detail technique, and unless the treatment is carried out in detail as explained by Dr. Carrel, only failure awaits your efforts. It is like mathematical precision, if one part is slighted or incorrect it just as well all be incorrect and one can only learn the technique by working with one with experience or in some institution devoted especially to this work, such as the War Demonstration Hospital at the Rockefeller Institute.

Too much is often expected of the treatment. Chronic osteomyelitis is not rendered sterile in 2 to 4 days and in some cases it takes that many months. The solution on the cutaneous surface is very irritating and unless the skin is properly cared for and strength of solution accurately gauged, causes the patient undue pain. The dressings, especially the daily changing of tubes, is painful and unless considerable care and diplomacy is exercised with your patient, you will lose their confidence completely.

The whole system of the treatment, including the bacterial counting, the making of the solution, the testing of the strength of the solution, the preparation of the apparatus and the dressings, cannot be carried out in a small hospital to the financial good of the hospital. It is only in a large hospital, a war hospital or large industrial hospital, and then with a corps of trained and experienced doctors and nurses that it can be carried out successfully.

The treatment is only adaptable to certain lesions and conditions and with its complicated technique, it really has a limited field. It should not be attempted by a small institution or individual as the number of cases would be too small to determine the virtues of the treatment and would incur considerable expense. What we should have is a large number of cases, say five thousand cases treated with Dakin's, then another series with as near similar injuries as possible and of near constitutional resistance treated with latest surgical technique in cooperation with a corps of notable surgeons as controls, or still another series treated with other antiseptics. Only after such series are carefully tabulated and compared for results, should we accept the treatment for what it is worth. Personally I believe the treatment would stand the test, which could be carried out in some of the base hospitals on the Western Front.

I am indebted to Major G. A. Stewart and Lieut. Sullivan of the War Demonstration Hospital of the Rockefeller Institute and Major Edward Wallace Lee of the Polyclinic Hospital for their personal interest in the cases I have treated and in observing the cases at the Rockefeller Institute. Drs. Stewart and Sullivan and others are cooperating very earnestly with Dr. Carrel at the War Demonstration Hospital in working out every detail of the treatment, but the number of cases are limited (less than a hundred) and no controls used of the ordinary surgical treatment. Various solutions and strengths are used to discover if there is any solution other than the original Dakin's that will better suit the demand. They are sincere workers and it is to be hoped that they are not pursuing a "will o' the wisp," in the dark wilderness of medicine, but will point out a true light of real value.

PROCEEDINGS OF ST. ANTHONY'S HOSPITAL CLINICAL SOCIETY.

Oklahoma City, October 15, 1917.

DR. A. A. WILL, Pres. DR. LEILA E. ANDREWS, Secy.

Dr. Edward F. Davis presented the following cases:

J. M., male, aged 34, farmer. While burning brush, got some foreign substance (probably ashes) in left eye which soon became congested and painful. In a few days a "scum" came on the cornea and vision was impaired. Had no special treatment for five weeks when examination showed a thin scar over lower part of cornea and an indolent ulcer above with considerable vascularization surrounding ulcer. There was little pain and only slight discharge. The ulcer resisted all ordinary treatment and was becoming larger gradually. The base was clean and slightly bulging and only the edge took fluorescin stain. One morning, he reported that he had had a sudden pain in the eye and a quantity of watery fluid escaped the preceding night. Inspection revealed an irregular line in the floor of the ulcer, indicating that it had ruptured. Following this, all symptoms abated, conjunctival congestion passed away and the corneal vessels disappeared in a few days. This case is shown on account of the fact that there was a spontaneous Saemisch operation. This incision was to have been made on this particular day but nature made it unnecessary.

Mrs. J., aged 72. Cataract extraction in right eye six months ago. Previous laboratory findings of blood, urine and conjunctival secretion was negative. Vision, at that time, merely perception of light. Recovery was rapid but vision was only about 10-200 and was not improved by glasses. The poor vision is due to a pre-existing choroiditis. The left eye was operated on ten weeks ago but recovery was complicated by a slow, painless plastic iridocyclitis with occlusion of the pupil and great thickening of the iris. An attempt was made to incise the pupillary membrane and to remove a part of the thickened iris but the new formation was so dense that this could not be done satisfactorily and no further efforts were made. In this case the patient is in no worse condition as a result of the operations on the second eye and the net result in the first eye is that she is able to get around which she could not do in safety before.

Report of case of Mrs. R., aged 51. Has been on Allen treatment for diabetes mellitus. She became sugar-free and at the same time developed a disturbance of vision so severe as to be unable to see an ordinary type written page. Examination showed a marked oedema of the optic nerve which gradually cleared up after she had been sugar-free some days and her sugar tolerance had been increased. This is a frequent finding in the cases reported by Joslin.

Dr. Smith reported cases of two men burned with steam following the bursting of a boiler. The men arrived at the hospital several hours after the accident occurred. Both had had their bodies and limbs bandaged and a hypodermic of morphine but on arrival complained very much of pain and were in a state of considerable shock. Very little time was spent in the removal of their clothing and superficial cleansing until they were put to bed, which was covered with a cradle and fitted with an electric light in such a way that none of the bed linen except that on which they lay came in contact with their bodies. They soon became warm and ceased to complain of such severe pain.

Both patients were badly burned. F. E. S., age 41, had burns of the first or second degree covering at least three fourths of the body surface. These burns were chiefly on the face, back, buttocks and limbs. The other patient, M. E. J., age 43, was burned over similar areas but the surface covered not being over two-thirds of the body surface.

Both patients were treated as follows: after they became warm they were bathed with a tepid dilute solution of sodium bicarbonate every two hours. Small quantities of a bicarbonate solution was given by mouth and large amounts of the

solution was administered per rectum by the Murphy drip. F. E. S. on the third day developed a severe nephritic lesion as was shown by the urine analysis, however no acetone appeared. The heart muscle became weak, the pulse became rapid and the patient died on the fourth day followiug twenty-four hours of delirium.

The second patient, E. S. J., was nearly as badly burned as the first but his kidneys seemed to stand the severe toxemia better than those of the first. The urine analysis of this patient showed a slight nephritis. No acidosis developed but a slight glucosuria which cleared up in a few days. After four weeks stay at the hospital, with urine negative, a temperature practically normal, the patient feeling fine and in good condition except for some small areas over his legs and buttocks which required skin grafting, he was removed to the railroad hospital in St. Louis for further treatment.

We were greatly pleased with the open air method of treatment. We especially noted that the wounds became only very slightly infected, and the men complained very little of pain. The wounds of the man who recovered were deep and extensive and we feel quite sure that the constant use of sodium bicarbonate solution, both internally and externally, prevented a severe acidosis which superimposed on the kidney lesion which he developed would have caused the death of our patient. The open air method gives free drainage, preventing the necrotic material from being absorbed and is of vital importance just as it is in draining a pus cavity to prevent absorption of pus.

Drs. J. W. Riley, S. R. Cunningham and H. Reed in discussing the report recited similar cases in which most satisfactory results were obtained by the open air method.

Meeting of November 19, 1917.

Dr. G. A. LaMotte showed a very interesting case of tumor of the mouth, which seemed to have its origin in the hard palate. Had been growing for about 10 years, was softer than bone-tissue, was painless and was not causing much inconvenience. The case was not diagnosed.

Dr. O. J. Walker, Director of the Laboratory at St. Anthony's Hospital, then gave a splendid paper on "Acidosis and the Recent Methods of Demonstrating It." This paper was accompanied by demonstrations by Dr. Walker and his laboratory assistants, and was most instructive. It marks the first of a series which he has promised us, showing to us and demonstrating for us the value of these laboratory aids—to our every-day work—no matter what the line of work may be. This paper will be printed in full in a subsequent issue.

DIET IN NEPHRITIS.

A. F. Chace and A. R. Rose, New York (*Journal A. M. A.*, Aug. 11, 1917), has studied the dietary requirements in patients suffering from interstitial nephritis by methods of blood analysis, and deduced dietaries which they published in tabulated form. They summarize their findings as follows: "A scheme of dietetic treatment for nephritis, based on the more recent advances in the field of nutrition, and tested in advanced cases of interstitial nephritis in this hospital, has had encouraging results thus far. The patients used in the test have been followed not only by the usual clinical observations at the bedside, but also by frequent chemical examination of the blood. The determination of creatinin and urea nitrogen affords an excellent and convenient means of gaging the kidney's capacity to eliminate nitrogenous waste products and noting the response of the nephritic to treatment. The plan provides a diet adequate in calories, protein, mineral elements and food accessories. To attain this, a variety in the menu has been insisted on. This insures a happier and more content attitude on the part of the patient, the inclusion of all the requisite vitamins and the complementing of biologically incomplete proteins. At least one hot dish is provided each day by giving a bowl of cream soup. Green vegetables are given to bring the iron intake in excess of 15 mg. per day. The sum total of the day's ash constituents should be decidedly alkaline in reaction and rich in calcium. * * *"

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Failure to receive the Journal should call for immediate notification of the editor, 307-8 Surety Building, Muskogee, Okla

Local news of possible interest to the medical profession, notes on removals, changes in address, deaths and weddings will be gratefully received.

Advertising of articles, drugs or compounds not approved by the Council on Pharmacy of the A. M. A. will not be accepted.

Advertising rates will be supplied on application. It is suggested that wherever possible members of the State Association should patronize our advertisers in preference to others as a matter of fair reciprocity.

EDITORIAL

THE RESPONSE OF THE AMERICAN DOCTOR.

A few months ago there was considerable perturbation in some minds over the possibility that the American Medical Profession might be found lacking in its response to the call of the Nation for aid in the War. A few, very few fleeting weeks have dispelled that idea in such an emphatic manner that "he who runs may read" and incidentally, interpret in the response, the very great ideals actuating the medical profession. Not weighing the matter as one of dollars and cents; not counting the losses, probably incalculable in a financial way, without regard to the inconveniences incident to wholly uprooting the daily habits of his life and taking up new burdens and labors, with which he was wholly unacquainted, the American Doctor, unaccompanied by the brass-band and the patriotic speeches, quietly boarded a train, at his own expense rode across the State, paid his own bills, underwent an examination, returned to his home to wait until ordered to go. It is said that now more than twenty thousand have been commissioned or are in process of receiving commissions. Under misinformation or misunderstanding hundreds of them gave up their offices in expectation of being called only to learn that months may elapse before they are called, if at all. It is said, too, that this number is more than adequate to care easily for an army far in excess of two million men. Add to this the known fact that thousands are ready to go at a later date when their services are apparently more pressingly required than now, and the scoffers who ignorantly talked of the possibility of drafting the doctor have their answer in eloquent and convincing action, action more convincing than any set of resolutions or talk.

To those who know him it is not necessary to introduce the American Doctor. His altruistic, self-sacrificing attitude on all State matters is only too well known to the observer. Mostly not in the draft age, deeply rooted by unusual ties to his surroundings, to him going to war means something indeed. We are proud to belong to that profession. Unboastingly, but with the greatest sincerety, we are able to say to the people, "we will do our share," more than that we will do all we can do, even exceeding the requirements wherever possible and prove the con-

tention of our enthusiastic friends that we are the important part of American citizenship necessary to a successful conclusion of the War and the resumption and continuation of peaceful activities after the War.

THE MEDICAL ADVISORY BOARDS.

The principal new feature of the changed draft regulations provided for the creation of Medical Advisory Boards throughout each state. All registrants disqualified on physical grounds, those who think they should have been or should not have been so disqualified physically and certain others referred to the Board by the Adjutant General are to be reexamined, after the Local Board examiners have completed their examination. All registrants heretofore examined and disqualified and those disqualified at the cantonments from the first increment of the draft are also to be reexamined by the Advisory Boards. The only exceptions to this reexamination are in such cases where the registrant is obviously disqualified physically—in such cases as loss of an eye, limb, paralysis and other plainly discernable disqualifications. One change, seemingly one to be greatly desired, is the power of the Board to place the military physical fitness of the registrant either as wholly unfit, partially fit or entirely so. This last seems to be a very sensible arrangement, for many men who are unable to undergo the rigors of heavy outdoor labors in the field, etc., are able to render their country valuable service otherwise, thus releasing men who are tied up in performing inside, or less strenuous, work for the more necessary work of War.

BRUSHING UP OUR MEDICAL DEPARTMENT.

There is something commendable in the manner in which our Nation is entering the War. Aside from the usual vexations incident to the handling and classifying of thousands of physicians—placing them where they can do the most good in the niche into which they best fit, our directors of the medical activities are virtually postgraduating hundreds of men in order to intimately acquaint them with the work they will be called to do. Our surgeons showing aptitude for such service are promptly sent to some center where skilled instruction in bone surgery and other needed branches is given by the best men. If he is an X-ray man he goes to a center where such is best taught, the laboratory man, the internist, in fact every branch is given all the help to perfect itself that may be had.

This augurs well for the final casting up of the services rendered by our profession and means that our men in the field will receive the best of treatment considering their surroundings and the opportunities present to relieve them from the injuries and illnesses.

PATRIOTIC LABORATORIES.

Drs. LeRoy Long, Dean of the Medical Department of the State University, and Walter E. Wright, head of the Walter E. Wright Laboratory, Tulsa, promptly placed their respective laboratories at the disposal of the newly created medical advisory boards of the State. They will perform or have performed all the necessary technical and complicated examinations they may decide is necessary to clear up any questionable point in the case of the registrant.

PERSONAL AND GENERAL NEWS

Dr. E. L. Underwood, Crescent, has moved to Oklahoma City.

Dr. W. B. Reeves, Wapanucka, is attending the Chicago clinics.

Dr. William H. Rogers, Tulsa, has been appointed City Physician.

Dr. J. R. Bryce, Snyder, was very ill in December with pneumonia.

Dr. M. K. Thompson and family, Muskogee, visited Galveston in November.

Dr. Amos Avery, Sapulpa, is nursing a broken arm due to automobile collision.

Dr. J. C. Taylor, Chelsea, visited the New Orleans hospitals and clinics in December.

Dr. J. C. Mahr, Oklahoma City, has been ordered to report to Ft. Oglethorpe for duty.

Dr. L. E. Inman, Oklahoma City, has been promoted to a Major in the Medical Reserve.

Dr. J. M. Bonham, Hobart, has been appointed a Captain in the Medical Reserve Corps.

Major R. M. Howard, M. R. C., paid his Oklahoma City friends a flying visit in December.

Dr. A. K. West, Oklahoma City, had his Ford Sedan appropriated by a thief while making a call.

Dr. W. B. Reeves, Wapanucka, is moving to Greenville, Texas, where he will make his future home.

Dr. J. C. Johnson, McAlester, is visiting the New York Clinics where he will remain for six weeks.

Dr. Raymond L. Fox, Altus, has been assigned from Ft. Sill to Chicago for special work in bone surgery.

Dr. C. H. Howell, Frederick, M. R. C., was ordered to report in San Antonio December 10th for assignment to duty.

Dr. M. F. Keller, Calera, is visiting the New Orleans clinics. He is nursing a broken arm received from an over active Ford.

Dr. J. A. Gregoire, a physician formerly residing in Cheyenne, it is said has been found guilty of first degree murder by a Kansas Court.

Dr. W. J. Whitaker, Pryor, has been invalided home for an indefinite period on account of illness. He will take up his old work in Pryor.

Dr. Z. G. Taylor, Mounds, is the latest sufferer from automobile theft. He recently lost his Ford and all attempts at recovery have failed.

Dr. T. L. Willis, Mangum, recently lost his car when the machine in some manner unknown caught fire while he was driving along the road.

Dr. W. B. Newton, Muskogee, is at home on indefinite leave from military service. An old ankle injury has been causing him much trouble.

Dr. A. D. Johannes, Oklahoma City, has changed his name to "A. D. Johns." The change was made to simplify spelling, according to the "News."

Dr. L. S. Willour, McAlester, Captain M. R. C., was detailed to study orthopedic surgery in the clinic of Dr. R. L. Hull, Oklahoma City, in December.

Dr. Robt. L. Hull, Oklahoma City, has been made a Major, M. R. C., and classes in orthopedic surgery are being assigned to him for instruction at Oklahoma City and Norman by the War Department.

Tulsa Chamber of Commerce heard from Drs. W. Forrest Dutton, A. W. Roth and J. N. Temples in an open meeting recently at which the "Necessity and Benefit of Medical Inspection of Schools" was discussed.

RESOLUTIONS PASSED BY THE OKLAHOMA COUNTY MEDICAL SOCIETY ON THE DEATH OF DR. RUDOLPH F. SCHAEFER.

Whereas, Almighty God has called from suffering our beloved friend and professional brother, Dr. Rudolph F. Schaefer, we, the Oklahoma County Medical Society, desire to express our high appreciation of him as a man and physician. He was one whose efforts were for the good of the profession and of the community in which he lived.

We send our heartfelt sympathy to his family that they may know that we, his colleagues, mourn with them.

L. J. Moorman,
H. H. Cloudman,
Committee.

Craig County Medical Society banqueted Dr. W. R. Marks at the State Hospital, December 14, on the eve of his departure for war service. Dr. Marks has been in the Government Service previously in Alaska.

Drs. A. L. Blesh, M. E. Stout, J. Z. Mraz and D. D. Paulus are the four Oklahoma City physicians who have gone out of one office to War. They announce that the office will be closed for the duration of the War.

Dr. Claude Thompson, Muskogee, has been assigned to temporary duty as Aide to the Governor in establishing Medical Advisory Boards in Oklahoma. He was commissioned 1st Lieutenant M. R. C., for that purpose.

Dr. Ross Grosshart, Tulsa, suffered a great bereavement in the recent death of Mrs. Grosshart, who was suddenly stricken and died in a few hours. His many friends in the profession throughout the southwest will regret to hear of his loss.

Dr. G. P. Cherry, Mangum, has just cleaned up a law suit of many years standing, coming out the winner in a contest for post office rent that has been pending since 1912, the case going through all the perplexities of the law's notorious delays.

The Hygeia Hospital is now located in its new and larger quarters at 4733 Vincennes Ave., Chicago, Ill. Physicians who wish to refer cases of drug addiction and alcoholism to Dr. W. K. McLaughlin, Supt., for treatment, should make special note of the new location of the Hygeia Hospital, since the new quarters are located in a section of Chicago very far from the old address.

Miami has had to be reassured that its smallpox situation is well in hand and there is no immediate danger of a general quarantine on that account, by inspectors from the State Department of Health. May we soon have the day when smallpox will be treated either with wholesale vaccination or silent contempt. Public hysteria need never occur and does not among the intelligent vaccinated; it is questionable if the State should waste its money attempting to reassure the other kind.

Enid physicians have formed an arrangement to further specialize in the work of their respective fields. Occupying an entire floor of the Enid National Bank Building, they will attempt to refer their work in such a manner as to give the patient the benefit of individual study. The physicians composing the clinic are: Drs. W. L. Kendall, nervous diseases and orthopedics; E. N. McKee, X-ray and skin diseases; A. S. Piper, eye, ear, nose and throat; F. A. Hudson, general surgery; Julian Feild, diseases of shildren and obstetrics; Jas. H. Hayes, kidney, bladder and rectal diseases. This class of work will unquestionably produce good resilts.

CORRESPONDENCE

THE DERMATOLOGICAL RESEARCH LABORATORIES
Philadelphia Polyclinic and College for Graduates in Medicine
Jay Frank Schamberg, M. D., Director.

Philadelphia, November 24th, 1917.

Dr. C. A. Thompson,
Muskogee, Okla.

Dear Dr. Thompson:

The United States Government is about to confer a license upon our laboratories to prepare and vend arsenobenzol. We are interested in the campaign for the suppression of syphilis and shall do all in our power to cooperate towards this end. The action of the Government enables us to again make our product directly available to the profession.

We are prepared to market arsenobenzol to physicians in 0.6 gram doses at $1.50 per ampoule, and in 0.4 gram doses at $1.25 per ampoule; 2 gram ampoules will shortly be supplied to hospitals (except private hospitals) at such a rate as to permit individual doses to be administered for less than $1.00.

Neosalvarsan is not being made by us at present.

Requests for arsenobenzol should be directed to the above address.

Very truly yours,
DERMATOLOGICAL RESEARCH LABORATORIES.

MISCELLANEOUS

MEDICAL RESERVE CORPS APPOINTMENTS, TO NOVEMBER 15th.

Waller Cornelius Threlkeld, Ada; Henry DeWitt Shankle, Afton; Charles Edward Thompson, Enid; Lyman L. Bunker, Ivanhoe; William McIllwain, Lone Wolf; Charles Ersey Smith, Muskogee; Claude A. Thompson, Muskogee; Gardner Henry Applewhite, Shawnee; Roy Keene Goddard, Supply; Grover Cleveland Moore, Wagoner; David Albert Beard, Westville.

ASSIGNMENT TO ACTIVE DUTY—MEDICAL RESERVE OFFICERS.

Much discontent is manifest throughout the country owing to uncertain conditions prevailing as to assignment to active service. To set the matter at rest and advise all concerned, the War Department has issued the following information with the request that all concerned give the matter the widest publicity.

1. Appeals for active duty accompanied by statements that officers have ceased all civil practice, have sold their homes and otherwise severed local connections, are continually reaching this office, leading us to the conclusion that some misunderstanding must exist as to the conditions under which appointments in the Medical Reserve Corps are accepted.

2. You are requested to give the widest publicity to the fact that the acceptance of a commission in the Reserve Corps does not necessarily imply immediate assignment to active duty; that the Reserve Corps has been organized to meet the conditions that will arise when our troops are more extensively engaged; and that until that time officers should continue their usual duties pending notice that orders are to be issued.

3. Up to within a short time ago it was possible to assign officers as rapidly as appointments were accepted, but for some time to come very few officers will be called out unless conditions materially change.

4. We have every reason to expect that the services of every available medical officer will be eventually required but it is manifestly impossible to utilize the entire Corps with the number of troops now serving.

5. All officers of the Reserve Corps on the inactive list will be given at least fifteen days' notice when first assigned to active duty. Until they receive such notice they should continue with their civil practice.

By direction of the Surgeon General.

R. B. Miller,
Lieut. Col. Medical Corps, U. S. A.

A LETTER TO ALL COUNTY COMMISSIONERS.

The University of Oklahoma, the School of Medicine, Oklahoma City, Oklahoma

Dear Sir:

I am writing you this letter to call your attention to our facilities for taking care of the poor people of your county at a very nominal expense to you.

We have on the faculty of the School of Medicine a great number of specialists in the different departments of medicine and surgery. Patients referred to us will receive the careful attention of the specialists into whose department they may go,—and in addition the advantages to consultation with any or all of the other departments. In case of poor people sent by you there is absolutely no charge for this service, the only charge being $10.00 per week to partly cover the actual expense of keeping patient in hospital. In cases in which X-ray examinations are necessary we charge $2.00 per plate, but X-ray examinations are not necessary in the majority of cases. Outside of this there is absolutely no charge whatever. The service of physician, surgeon, or specialists of whatever character, laboratory work, operating room, anesthetics, dressings, medicines, etc., are all rendered without extra charge.

There are many cases, partly those of a chronic surgical character that need not stay in the hospital longer than a couple of weeks when they are sent home cured and able to take their places as earning members of society. There are many cases of a medical character—many of them babies and small children—whose lives may be saved by proper attention to feeding and such medication as may be necessary. The expenditure of the nominal sum required to keep these people in the hospital in the hands of experts for several weeks is an economical procedure when it is considered that if they are not properly cared for they become burdens upon the people in the countries from which they come.

As the Medical Department of the State University we are anxious to render every possible service to the people in the different parts of the State. So far as the faculty of the School of Medicine is concerned we would be glad to have some arrangement through which we could take patients without charge even for hospital, but the State does not furnish us funds for that purpose for the reason that it seems to be fair to have each community pay the expense for service rendered. Patients sent us receive exactly the same professional care at the hands of the physician or surgeon given to private patients in any well ordered and well equipped hospital. Every effort is made to have the patients feel that the nurses and doctors have a personal interest in them and every effort is made to keep such patients from feeling that they are the recipients of charity.

We do not wish to interfere in the least with any hospital in your county. Some of the counties of the State have hospital facilities; many of the counties do not. We wish to offer you our service so that you may take advantage of the facilities in the care of your poor people if you are not able to secure the necessary facilities at home.

In sending patients all that is necessary for you to do is to send in an official order from your board to Mr. Paul H. Fesler, Chief Clerk, University Hospital, setting forth the fact that your board will be responsible for the expense incurred including the cost of transporting the patient home after leaving the hospital.

When patients are sent you may telephone the University Hospital, asking for some official, and if the patient needs an ambulance one will be sent to meet the train without extra charge.

In the case of patients coming without first advising hospital have them take a cab or street car and go to the Univeristy Hospital, 325 E. 4th St.

No one outside of those engaged in this work can realize how much good can be done for the people of our State in this field. I may say to you, too, that as we work at this problem of taking care of the helpless poor, the desire grows to be of more and more service. It is not a question of dollars and cents but it is the serious question of rehabilitating our citizenship and of bringing health and happiness to an unfortunate class of people.

I sincerely hope that we may count upon you to cooperate with us in carrying on this important work.

Yours truly,

(Signed) LeROY LONG, Dean.

To my son upon his departure for the war.

"DO THY BIT."

Go, my son, and do thy bit,
The freedom of the world's at stake;
Autocracy has set claim to all,
Destruction and slavery's in her wake.

Go, my son, and do thy bit,
The world was not made for kings;
Help to set the universe free,
And reap the reward it brings.

How oft have I huddled thee to my breast,
And fondled thee on my knee;
How oft have I watched the hours go by
When disease hovered o'er thee.

How anxiously have I watched the night,
And cooled thy fevered brow;
And prayed the fates to save my boy,
Just as I am praying now.

Through all thy years of childhood,
I have kept vigil o'er thy life;
No father ever more fondly loved,
Nor faltered less in strife.

But go, my son, and do thy bit,
First born of my blood, depart;
God's richest blessings go with thee,
Is the prayer of an aching heart.

I know you will come back to me
From whatever foreign land,
With good report for absent years,
And the ring upon your hand.

I know you will come back to me,
Sometime, somehow, some way;
It may be in a rosewood box,
Or in the judgment day.

But go, wherever duty calls,
Be it in the trench or pit;
Give up all for freedom's sake,
Go, my son, and do thy bit.

—*J. W. Echols, McAlester.*

WOUND INFECTIONS.

M. D. Shie, Cleveland (*Journal A. M. A.*, Dec. 8, 1917), gives his observations made in an emergency hospital of a large manufacturing plant. All departments were represented by patients who came to the hospital. Out of fifty or sixty patients seen daily, from 8 to 10 per cent had furunculosis and 5 per cent had wound infections. It is observed, however, that all cases came from two machine shops and a further particular observed was that out of the 1,200 or more workmen only those who

worked on lathes had multiple furunculosis and that 90 per cent of the infections occurred among the lathe workers. The number of infections varied with the number of lathes used. This led to the suspicion that some element in this particular kind of work must be the cause. There were two possibilities, the oil used and the cutting mixture. As regards the first, there was good reason for suspicion. The lubricating oils that were used automatically over and over again seem especially liable to produce "oil pimples" on parts of the body which come in contact with the oil. Cutting mixture is a compound of animal fats, petroleum oils, and, as a rule, acids used to facilitate the action of the cutting tool. It runs down over the work into drains beneath, which empty to a central reservoir from which it is pumped up to tanks near the roof, whence it flows down to be used over again. The men are accustomed to spit in the mixture below their machines and otherwise contaminate it, but it is used and re-used until it becomes so dirty it almost clogs the pipes. At least that was the condition before it was remedied. Each of these possible causes was investigated and the remedies sought for. Numerous disinfectants were tried, but only the coal tar products were found available, being not only cheaper but less liable to be toxic. Heat was also used for disinfection and found more or less effective. The cases of infection have been greatly reduced with the use of cresol and with education of the men and with the use of heat in combination with the disinfectant. The writer draws the following conclusions as to the cause of and remedy for furunculosis infection. 1. In a large manufacturing plant the vast majority of cases of wound infections and furunculosis were found to be localized among lathe workers in the machine shops. 2. The peculiar features of lathe work are the use of cutting mixture and oil, and the manner in which these circulate and are used repeatedly, thus making them extremely liable to contamination, which rendered them open to suspicion as factors in the causation of the wound infection and furunculosis. 3. These suspicions were borne out by bacteriologic investigation and animal inoculation, which showed the causative factor to be pyogenic organisms which were present in vast numbers in the cutting mixture and less numerous in the oil. Marked results were obtained. 4. Abundant portals of entry for these organisms were found on the arms of workingmen in innumerable small cuts and punctures made by flying chips of steel from the lathes. 5. The methods of prophylaxis possible are: (a) by heat; (b) by chemical disinfection, and (c) by a combination of the two. Various chemical disinfectants were tried, and the cresol group was found to be the most effective and the least expensive. 6. By use of chemical disinfection (cresols), wound infections have been reduced from 5 per cent to less than 0.5 per cent in the plant under consideration, and furunculosis has almost disappeared.

DIET OF PRISONERS OF WAR IN GERMANY.

American soldiers are in France and some of them have been and others inevitably will be taken prisoners, and a report of A. E. Taylor of Philadelphia (*Journal A. M. A.*, Nov. 10, 1917), of his observations of prisoner of war camps in Germany will be of general interest. In the broad sense, he says, one fundamental fact holds for the prison of war as well as other prisons. Prison life depends more on the character of the management than on the prison laws. But the prison of war problem is something more. The prisoner represents a reduction in the military forces of his country. He is industrially and politically a fact, and unfortunately can be made a weapon of defense in the hands of his captors, since he may be made the object of reprisal for the attainment of military ends. In a historical review, Taylor says, of the provisioning of the prisoner of war in Germany, three periods must be defined: the period of unorganization, the period of organization and the period of stringency. One must bear in mind also throughout the five accepted principles of the management of prisoners of war in Germany. (*a*) The possession of prisoners by Germany in greater numbers than those of her subjects in the hands of her enemies gave a situation of vantage. (*b*) The fact of a food blockade, as Germany could not secure manufactured commodities from the neutral world, gave her extraordinary rights over the labor of the prisoners of war. (*c*) The rules of discipline and control applying to her soldiers under her military law applied to prisoners of war under military rule. (*d*) Distinctions between prisoners of war of different nationalities were not recognized; the allies who fight together must as prisoners of war sleep together, eat together and work together. The Germans were taken by surprise, he says, by the number of prisoners taken in the fall of 1914, and in their confidence that their army would march directly to Paris, no special provision for the care of prisoners of war was contained in the campaign plans. Sometimes the quarters and food that were used were almost intolerable for several months, and the writer regrets to feel compelled from his personal observations to conclude that in some camps and under some commanders malice was a factor in the mistreatment. With the large number of prison camps the chances of getting a brute for an overseer were not few. His own personal experience only dates from March, 1916, and his information as to the earlier conditions was derived from testimony and records of the American Embassy and statements of German officials. The story of later conditions is more important. The fact that Germany has not declared war against the United States will not prevent the captured soldier from "getting his" if he should fall into the hands of a rancorous Prussian sergeant—a creature *sui generis*. The first subsistence arrangement for prisoners was by the contract system, which seemed the most feasible, and it was frankly admitted to Taylor by German authorities that in many instances the caterers grossly violated the trust imposed on them by the government, as was easy from the lack of inspection service, but openly the Germans usually denied more than nominal abuses. The first governmental regiment was issued in the spring of 1915, and was in a certain sense an admission of previous neglect. Under the commander of the camp operated a committee composed of subsistence officer, surgeon and paymaster. The service of the surgeon was limited to inspection of raw materials in stores and to a daily report on the taste of the midday soup. The details of the organization of the subsistence method are given, and as the expert of the prison nutrition office there was selected one of Germany's scientists who was better versed in the nutrition of animals than

of his own species. In Taylor's first interview with Professor Packhaus, he learned that he was not conversant with a literature of human physiology, though well versed in animal nutrition from the old standpoint of energy equivalents. He was not conversant with modern investigations, and was practically unacquainted with the work that had been done on adaptation of the diet and had no conception of the psychology of rationing. He attempted to ration prisoners of war exactly as one would feed live stock. Taylor reached Germany in March, 1916, and left in October, and during this period Germany passed from closeness to stringency in food supplies, and so he had, therefore, plenty of chance to study the rationing of the prisoners of war during this period of transition. The two mistakes that were responsible for most of the difficulties were disregard for the psychology of the diet and the selection of potato instead of bread as the keystone for the dieting. In this way their own people suffered. Other evils were due to the mixing of nationalities among the prisoners. For what would do for a Russian, for example, would not do for English or French. The bread was according to our standards very poor, though it might not have been so easy for the Germans accustomed to rye bread to appreciate this, and the amount of food given to prisoners as officially stated to the writer was only that which was available for the poorest nonworking citizens of the empire. Much food, of course, was sent from home to the prisoners, and there was fear that any repression of the food parcels sent to Germany for the prisoners through Switzerland and otherwise would have a bad effect on the German prisoners in Russia, though there was a protest against what was sent to the prisoners from the German population. Ambassador Gerard was an important factor in preventing abuses, and this director of nutrition seems to have very narrow ideas. Tables are given showing the diets in the Prussian prison camps. It is apparent, Taylor says, from these figures, that the United States must undertake and organize the feeding of Americans that may be taken as prisoners of war and confined in Germany. This indeed has been already undertaken, but if food conditions become more stringent in Germany the military authorities there may decide to rob the prisoners, and the allies in that case could have no recourse except reprisal. Taylor advises against this, since the western allies could never in theory or practice follow the Germans in reprisals.

SHELL-SHOCK.

Henry Viets, Boston (*Journal A. M. A.*, Nov. 24, 1917), reviews the English medical literature of shell shock, making frequent quotations from the authorities to whom he refers. The first report of cases appeared in 1915 under the term of "shell-shock." The symptoms are varied, covering nearly all the functional and hysterical phenomena described by authors. The importance of the problem cannot be overemphasized and if it is possible, those subject to the disease should be eliminated from among the recruits before they are exposed to the perils of trench warfare. The neuropathology of the condition has been best studied by Mott. In the fatal cases, the symptoms of shell-shock resemble those of the gas poisoning, which most neurologists hold cannot alone produce shell-shock. The treatment is largely moral as well as physical and seems to have been well worked up in the British hospitals. The writer asks in conclusion: "What can the Medical Corps of the United States Army do toward the prevention of shell-shock? Obviously it must be checked at the recruiting station or in the cantonment camps before the men leave for France. There ought to be no question in the minds of the medical officers as to the advisability of checking this condition at the source, for no one who has seen the results of modern warfare on the unstable mind can do otherwise than urge such measures with utmost vigor. It becomes the duty of each medical examiner to weed out from the recruits such men as are liable to shell-shock. By so doing an enormously important advance will be made in our army, as judged by the experiences of the other armies of the Allies. We have been strongly advised by Osler to check the enlistment of the neurasthenic. It is obviously difficult to pick him from the crowd, as he may come up in good form, and be eager to go overseas. But it is not so difficult with the mentally deficient, the 'queer stick,' the 'boob,' and the butt of the practical jokers. He is soon observed by both officers and men, and if one singles him out and talks with him for five or ten minutes, one ought to have no difficulty in deciding his fitness for active trench warfare. One ought also to look with especial care into the past history of the depressed, the man who worries unnecessarily, the self-conscious, the shy, the high-strung, excitable man, the violent-tempered, the nervous, the timorous, the easily frightened, or the neurotic individual. Any or all of them may make poor first-line-trench soldiers. The task is difficult, but that in itself should not prevent us from trying. What an advantage it would be to our army officers, and what a saving of life it would mean to our men, if the shell-shock patients could be eliminated from our forces that will fight overseas! Such a utopia is probably impossible, but I feel confident that careful weeding out of the mentally unstable will certainly greatly reduce the numbers of shell-shock cases that are bound to appear in our casualty lists."

COUNCIL ON PHARMACY AND CHEMISTRY.

During November the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Farbwerke-Hoechst Co., New York, Salvarsan.

Borcherdt Malt Extract Co., Borcherdt's Malt Sugar.

NEW AND NON-OFFICIAL REMEDIES.

Para*Dn* for Films (Surgical Para*Dn*, Plastic Para*Dn*).—Paraffin intended for application to burns, etc., should be more ductile and pliable than the official paraffin, and be liquid at or below 50 c. Thin films should be pliable at or below 28 c. and ductile at or below 31 c. and somewhat adherent to the skin. Paraffin for Films is used mainly in the treatment of burns. It is used also to prep re "paraffin covered bandages" and to seal gauze dressings. In the paraffin treatment of burns, the wound is cleaned and dried; a thin coating of liquid petrolatum or melted p raffin for films is applied, and is followed by a thin layer of cotton and another layer of cotton; another layer of melted paraffin is applied, and the whole then bandaged.

Stanolind Surgical Wax.—A brand of paraffin for films melting at 47 c., being pliable at or below 25 c. and ductile at or below 29 c. Standard Oil Company of Indiana, Chicago (*Journal A. M. A.*, Nov. 3, 1917, p. 1525).

Silver Protein-Squibb.—A compound of silver and gelatin, containing from 19 to 23 per cent of silver in organic combination. Like other silver protein compounds, it is used in from 1 to 25 per cent or stronger solutions for prophylaxis and treatment of the sensitive mucous membranes, particularly in gonorrhea, conjunctivitis and other infections of the urethra and of the eye, ear, nose and throat. E. R. Squibb and Sons, New York.

Arsenobenzol (Dermatological Research Laboratories).—A brand of arsenphenol-amine hydrochloride. Its actions, uses and dosage are the same as those of salvarsan. It is supplie in ampules containing 0.6 gm. The General Drug Co., New York City.

Acetylsalicylic Acid-Milliken.—A brand of acetylsalicylic acid complying with the standards of New and Non-official Remedies. It is sold only in the form of 5 grain capsules and 5 grain tablets. Jno. T. Milliken and Co., St. Louis, Mo.

Acetylsalicylic Acid (Aspirin), Monsanto.—A brand of acetylsalicylic acid complying with the standards of New and Non-official Remedies. Monsanto Chemical Works, St. Louis, Mo. (*Journal A. M. A.*, Nov. 17, 1917, p. 1695).

PROPAGANDA FOR REFORM.

"Patent Medicines" here and in Canada.—The federal law governing the interstate sale of "patent medicines" prohibits false and misleading statements in regard to composition and origin and false and fraudulent therapeutic claims. The Canadian law offers no protection against false, misleading or fraudulent statements that may be made for products of this class. As a result, many claims made for "patent medicines" when sold in Canada are not made when the same preparations are sold in the United States. An examination of Dodd's Kidney Pills, Doan's Kidney Pills, Williams' Pink Pills for Pale People, Paine's Celery Compound, Hall's Catarrh Medicine, Hoods Sarsaparilla, Dr. Chase's Nerve Pills, and Gino Pills as sold here and in Canada leads to the conclusion that the "patent medicine" industry as a whole is founded on falsehood, and that misleading and false claims will be made for such preparations, at least in the majority of cases, just so long as manufacturers are subject to no restraint except their own consciences (*Journal A. M. A.*, Nov. 10, 1917, p. 1636).

Shotgun Vaccines for Colds.—There is no reliable evidence for the value of mixed vaccines in the prevention or treatment of common "colds" and similar affections. The Council on Pharmacy and Chemistry accepted for New and Non-official Remedies mixed vaccines only on condition that their usefulness has been established by acceptable clinical evidence. So far it has not admitted any of the "influenza" or "catarrhal" mixed vaccines (*Journal A. M. A.*, Nov. 10, 1917, p. 1642).

Iodeol and Iodagol.—Iodeol and Iodagol (formerly called Iodargol) are the products of E. Viel and Company, Rennes, France. They have been widely and extravagantly advertised in the United States as preparations containing colloidal, elementary iodin, and with the claim, that because of the colloidal state of the iodin, they possessed the virtues but not the drawbacks of free iodin. As the result of chemical examination, pharmacologic, bacteriologic and clinical investigation and a study of the submitted evidence, the Council on Pharmacy and Chemistry declared the products inadmissible to New and Non-official Remedies because they did not contain the ammounts of iodin claied; because the iodin was not in the elementary or free condition but behaved like fatty iodin compounds, and because the therapeutic claims were exaggerated and unwarranted. The American agents, David B. Levy, Inc., announce that the sale of Iodeol and Iodagol has been discontinued (*Journal A. M. A.*, Nov. 17, 1917, p. 1725).

The Carrel-Dakin Wound Treatment.—Arthur Dean Bevan holds that the value of the Carrel-Dakin method of treating infected wounds has not been established. He has been forced to the conclusion that Carrel's work does not meet the requirements of scientific research. Bevan believes that the choice of antiseptics in the treatment of infected wounds is of little moment, and that the use of the Carrel-Dakin fluid, like Koch's lymph, Bier's hyperemia and the vaccine therapy of acute infections, will have a short period of popularity (*Journal A. M. A.*, Nov. 17, 1917, p. 1727).

Sphagnum Moss, A Surgical Dressing.—In England, sphagnum moss, or peat moss, is being used as a substitute for absorbent cotton. The dried moss is said to absorb twenty-two times its own weight of water, while absorbent cotton will not abosrb more than six times its weight. For surgical use the dired moss is packed loosely in muslin bags which are then sterilized by heat or chemicals such as mercuric chloride (*Journal A. M. A.*, Nov. 24, 1917, p. 1790).

Adulterated Imported Drugs.—The U. S. Department of Agriculture announces action against imports of adulterated drugs. Belladonna root was adulterated with yellow dock; cantharides was adulterated with so-called Chinese blister flies, and cinchona bark offered for entry was deficient in alkaloid. Other drugs were illegally labeled (*Journal A. M. A.*, Nov. 24, 1917, p. 1792).

Bell-ans (Pa-pay-ans, Bell).—Bell-ans, formerly advertised as Pa-pay-ans (Bell) in medical journals, is now advertised in newspapers and in medical journals. Among the extravagant claims made for this preparation is the claim that there is no derangement of the digestive organs on which the proper dose of Bell-ans will not act quickly and pleasantly. Instead, proper treatment must aim to determine the cause and attempt its removal, the choice of drugs depending on the conditions that give rise to indigestion. The treatment of indigestion by a single prescription or combination is wholly irrational. While Bell-ans, under its old and new name, has been alleged to contain papain or to be some preparation of the digestive juice of the fruit of *Carica papaya* with other substances, chemists have failed to find papain or to determine the digestive power of the tablets. Bell-ans is essentially a tablet of sodium bicarbonate and ginger, and has all of the virtues, which are few, and all of the limitations, which are many, of a tablet of sodium bicarbonate and ginger. The Council on Pharmacy and Chemistry examined Bell-ans nearly eight years ago, and the statements made in that report are as incontrovertible today as they were then (*Journal A. M. A.*, Nov. 24, 1917, p. 1815).

The Handicap of Proprietorship in Medicine.—Dr. J. J. Mundell protests because his article on the present status of pituitary extract in labor was abstracted in "Therapeutic Notes" in a way which appears to him a gross misrepresentation of his attitude toward the use of pituitary extract. Being a house organ, "Therapeutic Notes" contained only those portions of Mundell's article which may be expected to promote the firms' proprietary pituitary preparation. The references to the dangers and the limitations of pituitary extracts were not abstracted (*Journal A. M. A.*, Nov. 24, 1917, p. 1818).

Salvarsan, etc.—Besides the German salvarsan and neosalvarsan, now practically unobtainable, the Council on Pharmacy and Chemistry has recognized diarsenol, neodiarsenal and arsenobenzol (Dermatologic Research Laboratories). It has under consideration salvarsan made by the Farbwerke-Hoechst Company, New York. Before accepting these preparations, the Council requires evidence to show that the products are manufactured under supervision which may be expected to insure their chemical identity and uniformity, and freedom from toxicity. However, in the past, untoward effects have been reported from German salvarsan and neosalvarsan, particularly with the last shipments of neosalvarsan. Recently untoward effects have been reported from neodiarsenol. It is expected that within a short time all salvarsan, neosalvarsan and the various products identical with these will be tested by the Government (*Journal A. M. A.*, Nov. 24, 1917, p. 1819).

Some Misbranded Nostrums.—The following nostrums have been the subject of prosecution by the federal government under the Food and Drugs Act: DeWitt's Electric Cure, containing alcohol, opium and ether. DeWitt's Liver, Blood and Kidney Cure, essentially a water-alcohol solution bearing a cathartic drug, together with Epsom salt, nitrates and iodids. Lightning Hot Drops, containing 60 per cent. alcohol and 48 drops of chloroform to the ounce, as well as ether and capsicum. Mother's Salve Mother's Remedy, a salve consisting of petrolatum, with some glycerin, potassium chlorate and oils of cloves, cinnamon, eucalyptus, sassafras and pine or juniper. Raney's Blood Remedy, a solution of potassium iodid and mercuric chloride in syrup of sarsaparilla with 16 per cent alcohol. Rattlesnake Oil Liniment, White Eagle Indian Rattlesnake Oil Liniment, containing little or no "rattlesnake oil." Rosadalis, essentially a water-alcohol solution containing potassium iodid and a cathartic drug (*Journal A. M. A.*, Oct. 6, 1917, p. 1192).

Ziratol.—The Council on Pharmacy and Chemistry reports Ziratol, sold by the Bristol-Myers Company, New York, ineligible to New and Non-official Remedies, (1) because its composition is secret; (2) because the phenol coefficient is not stated on the label; (3) because its use by the public as a "vaginal douche" is advised, and (4) because the claim that Ziratol is the "Universal disinfectant" is unwarranted. The A. M. A. Chemical Laboratory reported that the preparation is a soap solution containing alpha-naphthol as its essential constituent (*Journal A. M. A.*, Oct. 6, 1917, p. 1191).

Gonosan.—The Council on Pharmacy and Chemistry reports that Gonosan, sold by Riedel and Co., Inc., is in the form of capsules said to contain oil of sandalwood and kava resin advertised for the treatment of gonorrhea (as indicated by the name). It declared Gonosan inadmissible to New and Non-official Remedies because the therapeutic claims are exaggerated; because there is no evidence that the combination of kava resin with oil of santal is superior to oil of santal alone, and because the therapeutically suggestive name is conducive to indiscriminate and unwarranted use of the combination both by the profession and by the public (*Journal A. M. A.*, Oct. 13, 1917, p. 1287).

Alcresta Ipecac.—This preparation of ipecac was admitted to New and Non-official Remedies in 1915. Recently claims have been advanced for this preparation which were not contemplated at the time of its acceptance and which appeared improbable and unwarranted in the light of the known properties of ipecac. The Council on Pharmacy and Chemistry brought these extravagant claims to the attention of Eli Lilly and Co., the proprietors of Alcresta Ipecac. As Lilly and Co. would neither discontinue nor modify these claims and did not submit any evidence to warrant them, the Council announces that it has been obliged to delete this proprietary from New and Non-official Remedies (*Journal A. M. A.*, Oct. 20, 1917, p. 1373).

NEW BOOKS

TEXT BOOK OF OPHTHHALMOLOGY.

Text Book of Ophthalmology, by Hofrat Ernst Fuchs, Professor in the University of Vienna. Authorized Translation from the Twelfth German Edition: Completely Revised and Reset With Numerous Additions Specially Supplied by the Author and Otherwise Much Enlarged by Alexander Duane, M. D., Surgeon Emeritus, Knapp Memorial Hospital, New York. 1030 pages, with 462 illustrations. Fifth Edition. Price $7.00. J. B. Lippincott Co.

The present edition of this well known book is not a translation of a new German edition, but a revision and rearrangement by the translator, partly by notes supplied by Prof. Fuchs and partly in accordance with his own ideas.

Recent progress in ophthalmology has necessitated the complete rewriting of certain sections and considerable addition to others. As in former editions, the translator has indicated those sections for which he is responsible. This book has long been a standard text. The revision has brought the new edition up to date and added to its value. Fullenwider.

SURGERY OF THE MOUTH AND JAWS.

A Practical Treatise on the Surgery and Diseases of the Mouth and Allied Structures, by Vilray Papin Blair, A. M., M. D., F. A. C. S., Professor of Oral Surgery in The Washington University Dental School, and Associate in Surgery in the Washington University Medical School. Third Edition, Revised so as to Incorporate the Latest War Data Concerning Gunshot Injuries of the Face and Jaws; Compiled by the Section of Surgery of the Head, Subsection of Plastic and Oral Surgery, Office of the Surgeon General of the Army, Washington, D. C. Cloth, 460 illustrations, Price $6.00. C. V. Mosby Company, St. Louis, 1917.

The rapidity with which previous editions of this work have been exhausted attest its popularity and interest to the reader. A very cursory examination will convince the reader of the excellence of the work and its great merit, not only to the Surgeon, but to the dental surgeon and the general practitioner who is occasionally called to step into the breach in the absence of a skilled oral surgeon and his very necessary concomitant, the skilled dentist.

Practical experience points to us that wonders may be performed in diseases of the mouth and jaws by the observance of simple rules and the practice of great patience. The individual ingenuity of the surgeon is more often called into play in this class of conditions than any others in the field of surgery. The rich, kindly blood-supply of the parts is, as a rule, the best ally of the surgeon and while each case is considerably a rule unto itself, the observance of certain fixed principles will be rewarded by the best of results. Blair points out the systematic handling, as far as reasonably may, of these conditions. The book is certainly worth while.

A TREATISE ON REGIONAL SURGERY.

By Various Authors, Edited by John Fairbairn Binnie, A. M., C. M., F. A. C. S., Kansas City, Mo. Volume Two; 213 illustrations; Cloth, 656 pages. Price $7.00. Philadelphia, 1917. P. Blakiston's Son and Co.

This is the same high class work as noted in the review of volume one. The list of contents includes articles on the Abdominal Wall, and Hernia by Dr. Binnie; The Stomach and Intestine, Rutherford Morrison; The Vermiform Appendix, A. J. Ochsner; The Large Intestine, W. J. Mayo; Intestinal Obstruction, F. T. Paul; Peritoneum and Omentum, Charles A. Powers; Rectum and Anus, E. S. Judd; The Liver, L. L. McArthur; The Pancreas, R. C. Coffey; The Spleen, Adrenals and Retroperitoneal Space, William D. Haggard; The Kidney and Ureter, W. E. Lower; The Bladder, E. Hurry Fenwick; Diseases of the Prostate, Charles L. Gibson; Diseases, Injuries and Deformities of the External Male Genitalia, Spermatic Cord and Seminal Visicles, E. O. Smith; Affections of the Spinal Column, Alexis Thomson; Diseases of the Spinal Cord, William Thorburn. This volume continues the mark of excellence set by its predecessor. Praise of it is both unnecessary and superfluous.

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